

TIG WELDING IS NOW MUCH SIMPLER
INVERTIG.PRO digital



Simply weld



"SIMPLY everything at a glance, and everything in hand."

"SIMPLY the right programme for all welders."

"SIMPLY the experienced assistant for special situations."

It just couldn't be simpler.

For better, safer, and more efficient welding, you don't just need know-how, but a unit that can think and that knows what its operator is doing or wants to do. The INVERTIG.PRO *digital* is a welder's best friend and an effective worker in one. Simple to operate. Simply reliable.





Fascinating Performance 100 % Overview

INVERTIG.PRO digital

Revolutionary operation – digital simplicity

The INVERTIG.PRO *digital* combines the finest welding technology with maximum user comfort. The core unit is the digital operating module, which simplifies formerly complex welding situations and presents them to the user in a comprehensible manner.

The revolutionary operating concept combined with unique REHM functionality makes it extremely simple to access the power unit and its popular and proven **Bi-Power-Inverter**.

- **Central, high-resolution graphics monitor**
Everything displayed in a single view in excellent graphics quality. Protected by a plastic, impact-proof panel, and considerably more robust than conventional displays.
- **Four applications**
All four applications Classic, Programme Manager, Assist and System provide the user with maximum guidance.
- **R-Pilot – the central operating element**
Can be operated with one hand, even when wearing gloves. The only projecting control element, with plastic side guards to protect it from mechanical damage.
- **Four multi-function selection buttons**
For fast and simple navigation in all application fields.
- **Two QUICK CHOICE buttons**
Allow you to save two current welding jobs quickly and simply.

INVERTIG.PRO *digital* – The Evolution:

INVERTIG.PRO *digital* 240 DC and AC/DC
INVERTIG.PRO *digital* 280 DC and AC/DC
INVERTIG.PRO *digital* 350 DC and AC/DC
INVERTIG.PRO *digital* 450 DC and AC/DC

- **Extremely safe and simple operation**
The operation of the INVERTIG.PRO *digital* raises expectations to tomorrow's levels. Self-explanatory, informative and supportive. Typically REHM, systematically realised.
- **Maximum duty cycle**
Sensationally low weight
No limits: 100% duty cycle with all models of the INVERTIG.PRO *digital* range.
- **Maximum energy efficiency**
The REHM **Bi-Power-Inverter** – intelligent energy management combined with innovative components. Almost the entire supplied power is fed to the arc.
- **iSYSTEM**
The CAN-linked multi-processor architecture together with intelligent expansion modules open up a wide range of possible applications. Simply plug & play.



Classic Application



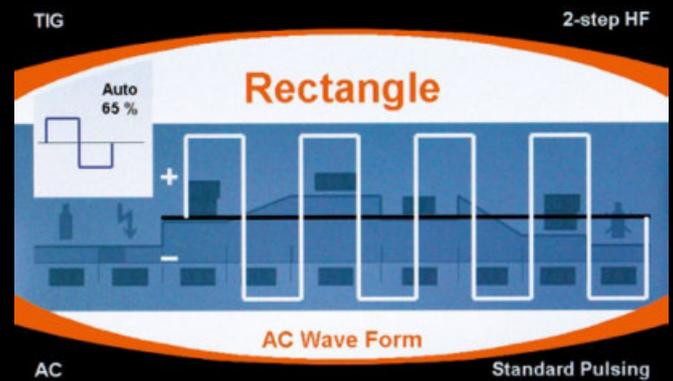
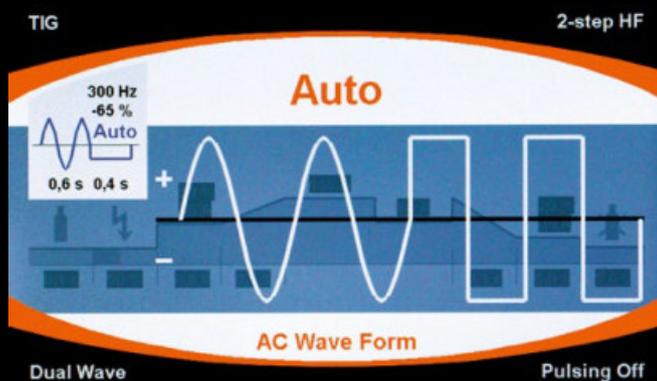
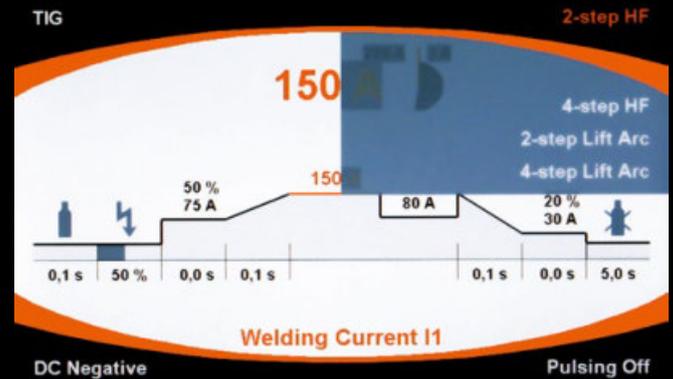
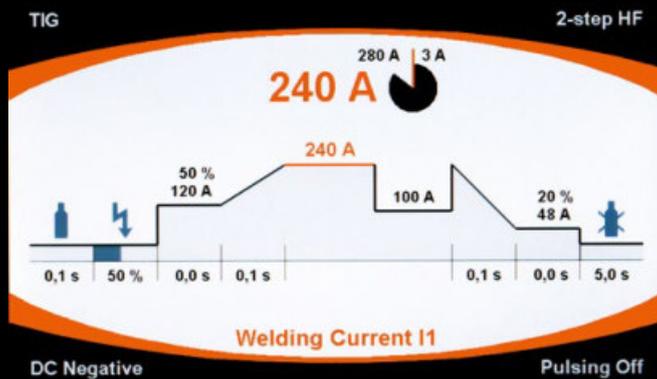
|| Everything at a glance, everything in hand.

With my new INVERTIG.PRO *digital* I can see all the parameters of my welding job at a glance, displayed graphically.

The advantage: I am able to adapt the weld curve simply and quickly to changes in requirements, modify any values in a second and observe everything in a direct, dynamic comparison.

That way I won't miss anything! REHM knows what welders want. ||

INVERTIG.PRO digital



Classic Application – Quality in a single view

Classic is the right application for significantly increasing the quality of the weld seam and ensuring the consistent high standard of the seam's properties. The dynamic graphical display shows the welder not only the entire welding sequence with all the welding parameters in a single view, but also proportionalities, operating modes and welding procedures. And all this in hitherto unknown clarity and intelligibility.

The REHM effect: all changes made are displayed immediately and transparently, and can be modified instantly. This ensures the user has a direct connection to the job at hand.

Users learn to operate the INVERTIG.PRO digital in a professional way up to 80 % faster compared to conventional welding devices.

Benefits to you:

- The self-explanatory graphical display guarantees extremely simple operation
- Pleasant handling ensures increased ergonomics
- Better comprehension of processes prevents errors and increases quality
- The user can instantly recognise wrong settings
- The entire functional range can be comprehended at a glance

How you profit:

- Your customers enjoy maximum satisfaction thanks to your top quality work
- Enhance your image by performing an excellent standard of work for your customers
- Increase your competitiveness by being more efficient
- Make your business ready for the future by employing toplevel technology
- You promote the overall potential of your employees

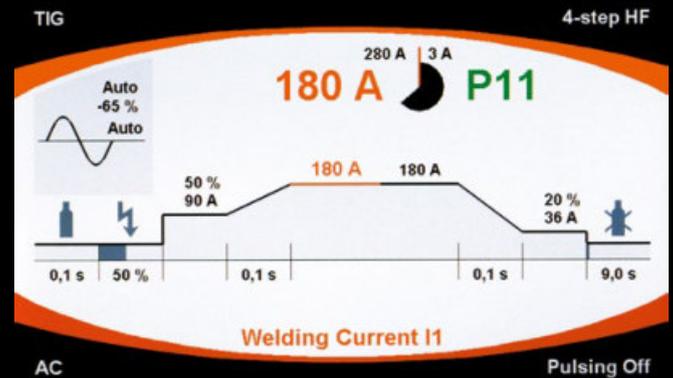
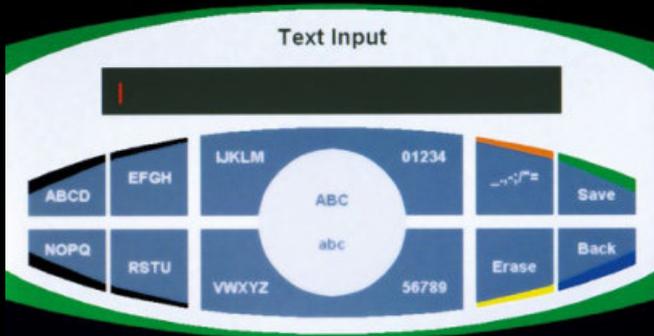
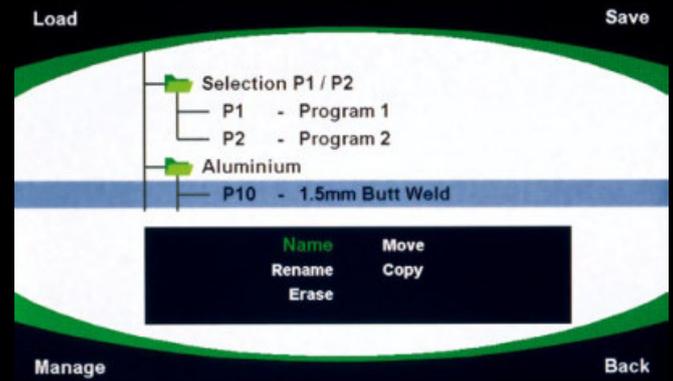
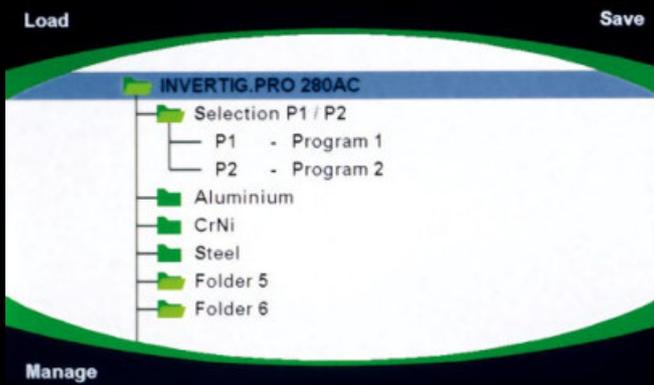
Programme Manager Application



|| The right programme for everyone.

I notice every day that the INVERTIG.PRO *digital* is made with built-in efficiency. Our welders can only choose from those weld curves that they need for a particular job. And these are exactly right: Both for the job and for the welder – thanks to the individually adjustable tolerance range. With REHM profitability gets programmed. ||

INVERTIG.PRO digital



Programme Manager Application – Focus on Efficiency

The Programme Manager simplifies the process of working with programmes by employing a clearly structured graphical display. Frequently used weld curves can be saved easily, ordered by employee, customer, material, or other parameters. This means that exactly the right weld curve is always ready-to-use for a particular job. The clear structures used in pre-programming the weld job result in simple management and a considerable increase in efficiency on the part of employees.

The REHM effect: a high level of acceptance among operators, because already familiar with the process of memory management from PC applications.

Accessing saved welding programmes is now 80 % faster than with job memory systems used to date.

Benefits to you:

- Clear full-text display allows rapid access to programmes
- The user can see the programme content at a glance
- The Programme Manager makes it possible to accommodate a welder's individual strengths
- This Application enjoys fast and widespread acceptance among users

How you profit:

- You can rely on the high precision of repeated work sequences in recurring weld processes
- This application enjoys maximum satisfaction thanks to your top quality work
- Benefit from a considerable reduction in costs by reducing non-productive time and false settings

Assist Application

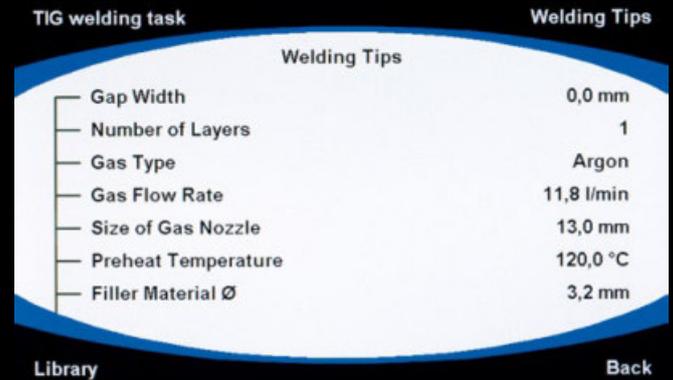
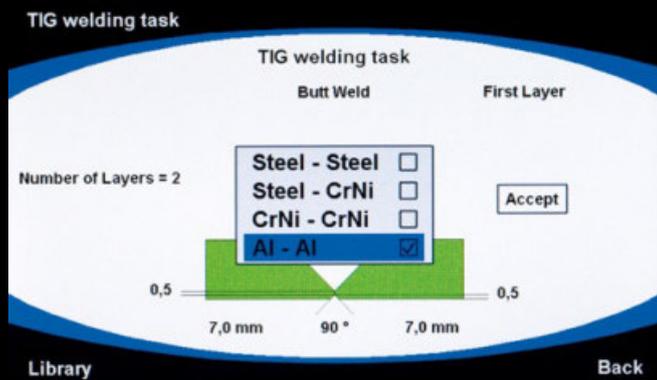
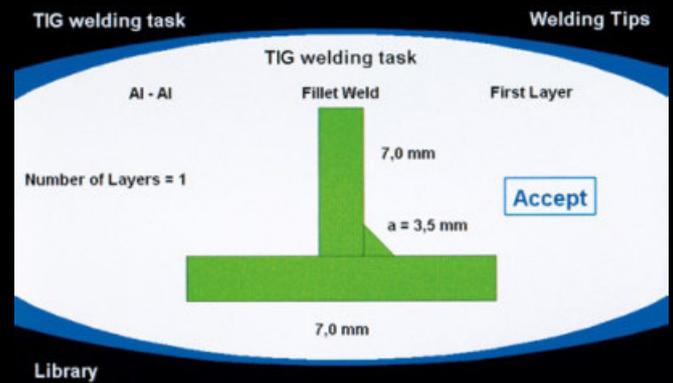
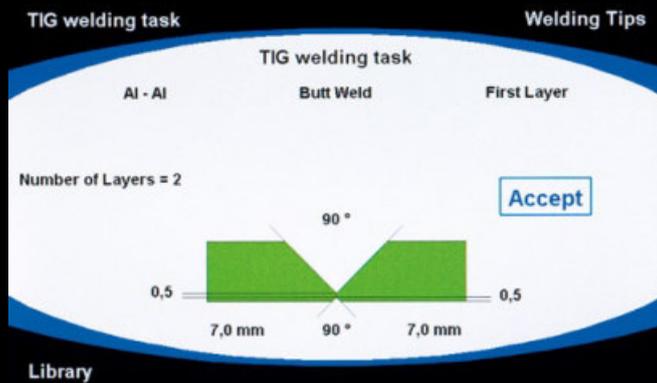


|| The experienced assistant for special cases.

Instead of setting individual welding parameters individually by trial and error, I simply enter the job graphically – and the INVERTIG.PRO *digital* creates a tailor-made curve in an instant. Additionally, the library contains extensive information on all aspects of welding.



INVERTIG.PRO digital



Assist Application – Professionalism in every task

Assist is the professional application – and not just for newcomers to the profession. Experienced welders also benefit when welding rare material combinations or thicknesses thanks to the extremely comprehensive knowledge database and the dynamic and practically orientated graphical display of their welding job. The user simply selects his material combination, seam type, and material thickness, and the expert knowledge database calculates the necessary settings.

The REHM effect: professional operation is simple thanks to the setting of welding parameters oriented towards the weld job.

Benefits to you:

- The user can devote his full concentration to the weld job
- The application provides the user with safe support for variable weld jobs
- An optimum solution is provided for every weld job
- Fitting and set-up times are considerably reduced
- Guaranteed high flexibility and 100% reproducibility
- Users are encouraged to find new, more efficient ways of doing a job
- Additional information is available from the welding tips, to support error avoidance
- An extensive library contains compact knowledge, available on site

How you profit:

- Achieve maximum satisfaction of your customers thanks to your top quality work
- Enhance your image by performing an excellent standard of work for your customers
- Increase your competitiveness by being more efficient
- Make your business ready for the future by employing top-level technology

Find professional welding parameters without trial welds – up to 60% faster.

Assist Application

TIG welding task Welding Tips

TIG Electrodes

Abbreviation	WP
Colour	Green
Oxide	
Advantage	good arc stability
Disadvantage	low current-carrying capacity Bad ignition properties
DIN EN ISO 6848	

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TIG welding task Welding Tips

	Base Material	Filler Material	AWS	Material Number
1:	Al99,5	1050		3.0255
Material 1				
	Al99,5	1050		3.0255
	AlMg3	5754		3.3535
	AlMg4,5Mn0,7	5083		3.3547

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TIG welding task Welding Tips

Gases

Name	W2
Composition	98%Ar, 2% H2
DIN EN ISO 14175	R1
Application	Manual welding Deep penetration High welding speed Concentrated arc

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TIG welding task Welding Tips

Welding Position

EN 287 / EN ISO 6947

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Assist Application – Professional in every job

The Welding tips

You need information about your current welding job?
The welding tips will give you additional practical information.

The Assist library

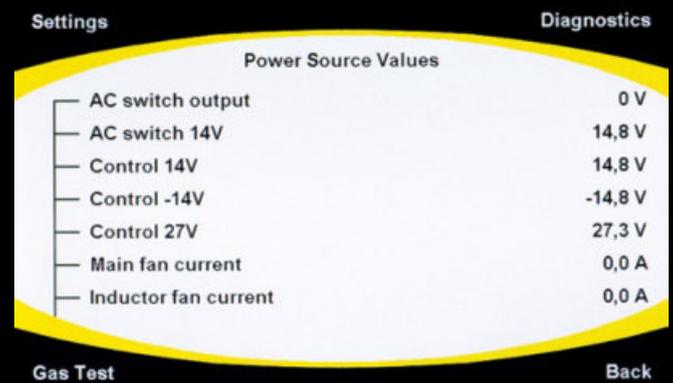
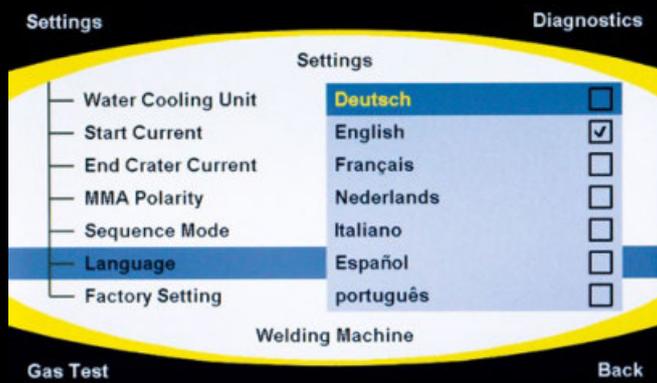
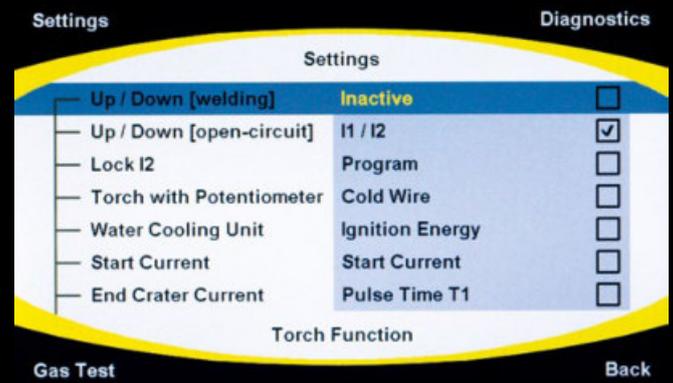
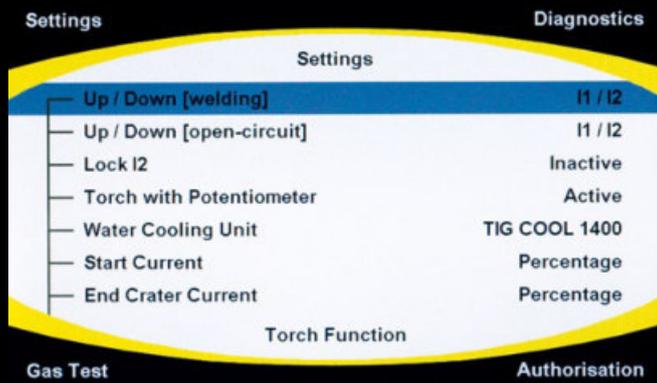
General technical knowledge in the field of welding – available any time and anywhere. The library is an extensive database containing a full range of specialist information available on the spot.

4 steps to welding

1. Select material
2. Set type of seam
3. Set material thicknesses
4. Weld

Additional information about the set welding job can be obtained directly from the welding tip in the device.

System Application



System Application – Configuration is childsplay

System is the application that allows you to determine operations and processes with great comfort and clarity. This makes it possible for the device to adapt optimally to the requirements of both the welder and the company. A comprehensive diagnostic section provides real-time information about software and hardware.

The REHM effect: the transparent display gives a clear overview allowing individual configuration without excessive handling of the device.

Benefits to you:

- Every user can configure the device to meet his individual requirements
- The application supports a high degree of flexibility
- Configuring the device is childsplay

How you profit:

- Motivate your employees with future-proof, cutting-edge technology
- Provide your employees with an ideal, customisable tool

Safe and simple operation



Childsplay – the REHM operating concept

■ R-Pilot – extensive functionality extremely easy to operate

The central operating control of the INVERTIG.PRO *digital* is the integrated R-Pilot.

■ Maximum operator comfort – even when wearing gloves

The four multi-function selection buttons arranged around the R-Pilot guarantee fast and simple navigation. The dynamic graphical display of all settings means the INVERTIG.PRO *digital* can give the user a hitherto unknown quality of information.

■ Programme memory

The programme memory built into the INVERTIG.PRO *digital* can store up to 1,000 programmes. Thanks to the INVERTIG.PRO *digital* operating concept, memory management is a simple matter.

■ QUICK CHOICE BUTTONS

Increased safety, comfort and time saving. With the QUICK CHOICE buttons P1 and P2 you can save two current settings from a welding job easily and quickly and just as retrieve them.

■ Clear structure

The INVERTIG.PRO *digital* features four ideally matched applications:

- For setting the welding parameters: the two applications **Classic** and **Assist**
- For managing programmes: the **Programme Manager** application
- For configuring the device: the **System** application

- 1 QUICK CHOICE buttons
- 2 R-Pilot
- 3 Multi-function selection buttons
- 4 Select Classic Application
- 5 Select Programme Manager Application
- 6 Select Assist Application
- 7 Select System Application
- 8 High-resolution graphics monitor

INVERTIG.PRO digital



■ REHM Automatic Frequency Control

The patented REHM automatic frequency control automatically adjusts the AC frequency to the current strength. When using low welding currents, the AC arc is focussed. This ensures safe root penetration, for example when welding thin sheet in fillet seam welding. With higher currents, the tungsten electrode charge is reduced. This results in longer tungsten life and optimum economy. The automatic frequency control offers considerable advantages, particularly when using the P1 *iSYSTEM* remote foot control.

■ Adjustable AC-Matic and AC Wave Forming

Increased flexibility and increased safety. The new REHM AC-Matic automatically provides the appropriate AC waveform. In addition, when using AC welding, sinusoidal, triangular and square waveforms can also be set manually.

■ Dual Wave – aluminium welding made easy

DUAL WAVE reduces the superfluous AC portion in the arc to the absolute minimum. The reduced heat input means that the control of the welding pool is discernably improved. This is especially the case with positional welding, and when welding on sheet edges. DUAL WAVE also reduces the electrode charge.

■ Hyperpuls® – TIG Pulses up to 15,000 Hz

When using high-frequency pulses, a precise and focused arc with a high performance density is achieved. This ensures safe, even penetration along with a reduced heat-affected zone. The increased arc pressure also enables faster welding speeds, appropriate to the application.

■ Spot Welding

By precisely setting the welding time it is possible to perform tacking, for example, with considerably stronger currents than with manual operation. This results in less tarnish colours and distortion, not to mention a reduction of rework.

■ Interval Welding

Interval welding consists of defined spot welding with defined pauses. This results in considerable benefits, particularly in tool and mould construction and other similar applications. The application of extremely thin filler materials is also possible. The unwanted heat input into the base material is reduced.

■ MMA

Hot-Start and Arc-Force parameters can be optimised automatically by selecting the type of electrode. With AC models, the polarity can also be predetermined, if desired.

Flexible performance from a single source



TIG-COOL CART 2000 iSYSTEM



TIG-COOL 2000 iSYSTEM

Technical Features

■ TIG-COOL 2000

- Cooling performance 1500 W at 1.3 l/min
- Communication between the water cooling unit and the INVERTIG.PRO *digital* (Plug & Play)
- Centrifugal pump and appropriate pump controller with standby function
- Temperature monitoring
- CAN-BUS connection
- Flow sensor
- Chassis excludes cylinder trolley, crane eyes and handle bar
- REHM EASY LOCK for fast and safe positioning and fastening of the INVERTIG.PRO *digital*

■ TIG-COOL 1400

- Cooling performance 1100 W at 1.3 l/min
- Centrifugal pump
- Cart excludes cylinder trolley, crane eyes and pushing handle
- REHM EASY LOCK for fast and safe positioning and attachment of the INVERTIG.PRO *digital*

■ TIG-COOL CART 2000 iSYSTEM TIG-COOL CART 1400

- Cart including TIG-COOL 2000 iSYSTEM or TIG-COOL 1400
- Large, smooth-running wheels with a robust chassis
- Cylinder trolley for 50l gas cylinder
- Integrated crane eyes
- Robust handle bar

■ TIG-CART

- Cart like TIG-COOL CART. No cooling device
- With lockable storage compartment
- REHM EASY LOCK for fast and safe positioning and fastening of the INVERTIG.PRO *digital*

TECHNICAL DATA TIG-COOL CART / TIG COOL

Model		TIG-COOL (CART) 1400	TIG-COOL (CART) 2000
Mains voltage (von INVERTIG.PRO <i>digital</i>)	[V~]	2 x 400	2 x 400
Power consumption	[A]	1,0	1,5
Cooling capacity with R-TIG welding torch at 25 °C / 1,3 l/min	[kW]	1,1	1,5
Flow volume max.	[l/min]	2,3	2,3
Tank capacity	[l]	5,0	5,0
Empty weight (without coolant)	[kg]	62	62
Dimensions L x W x H TIG-COOL CART	[mm]	1050 x 600 x 880	1050 x 600 x 880
Dimensions L x W x H TIG-COOL	[mm]	620 x 480 x 525	620 x 480 x 525
Article number	TIG-COOL CART TIG-COOL	7532005 7532015	7532000 7532010

INVERTIG.PRO digital



Options and accessories

Our wide range of accessories offers full flexibility for your system:

- Cart with water cooling unit and cylinder carrier TIG-COOL CART 2000 *iSYSTEM* and TIG-COOL CART 1400
- Water cooling unit on rollers TIG-COOL 2000 *iSYSTEM* and TIG-COOL 1400
- Cart with storage compartment TIG-CART
- R-TIG welding torch Up/Down *iSYSTEM*
- Remote foot control P1 *iSYSTEM*
- Automation interface
- Air filter attachment for TIG COOL (CART)

Premium-Sets

(R-TIG-torch *iSYSTEM* 8 m, pressure regulator, earth cable 4 m)

- R-TIG 200/35 Art.-Nr. 1485200
- R-TIG 200/50 Art.-Nr. 1485205
- R-TIG 260W/35 Art.-Nr. 1485210
- R-TIG 260W/50 Art.-Nr. 1485215
- R-TIG 450W/70 Art.-Nr. 1485220
- R-TIG 450 WSC/95 Art.-Nr. 1485225

A wide range of welding accessories can be found in the REHM catalog.

TECHNICAL DATA INVERTIG.PRO digital

Model		INVERTIG.PRO 240 DC digital 240 AC/DC digital	INVERTIG.PRO 280 DC digital 280 AC/DC digital	INVERTIG.PRO 350 DC digital 350 AC/DC digital	INVERTIG.PRO 450 DC digital 450 AC/DC digital
Welding current at 100 % (ED)	TIG Electrode [A]	240 240	280 260	350 350	450 360
Duty Cycle (ED) at I max (10 min/40 °C)	TIG Electrode [%]	100 100	100 60	100 100	100 60
Mains voltage	[V]	3 x 400 V			
Fuse	[A]	16	16	32	32
Torch cooling		Gas (Water)	Gas (Water)	Gas (Water)	Gas (Water)
Weight	DC AC/DC [kg]	25 27	25 27	30 31	30 31
Dimensions L x W x H	[mm]	520 x 360 x 460			
Article Number	DC AC/DC	1422410 1422415	1422810 1422815	1423510 1423515	1424510 1424515

We reserve the right to make technical changes without notice. All units bear the CE and S marks and comply with the EN 60 974 and EN 50199 standards.

REHM – Setting the pace in welding and cutting today

The REHM performance program

- **REHM MIG/MAG welding equipment**
SYNERGIC.PRO^{2®} gas and water-cooled to 450 A
SYNERGIC.PRO^{2®} water-cooled 500 A to 600 A
MEGA.ARC[®] stepless regulation to 450 A
PANTHER 200 PULS pulse welding unit with 200 A
MEGAPULS[®] pulse welding units to 500 A
- **REHM TIG welding equipment**
TIGER[®], single-phase, 170 and 210 A
INVERTIG.PRO[®], three-phase, 240 to 450 A
- **REHM manual arc welding equipment**
BOOSTER.PRO 170 and 210, single phase
BOOSTER.PRO 250 and 320, three phase
- **REHM plasma cutting units**
- **Welding accessories and additional materials**
- **Welding smoke extraction systems**
- **Technical welding consultation**
- **Torch repair**
- **Service**

Development, construction and production – all under one roof – in our factory in Uchingen. Thanks to this central organisation and our forward-thinking policies new discoveries can rapidly be incorporated into our production. The wishes and requirements of our customers form the basis for a 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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