

NEW

SYNERGIC.PRO[®]
304-504 WS | 352-402 W | 251-351
MIG / MAG HEAVY DUTY MACHINES – POWER WITHOUT END, SAFE CONTROLLED!





SYNERGIC.PRO® 304-504 WS – The „heavy duty machines” for tough industrial use



Focused arc

The REHM **FOCUS.ARC** welding process can be activated on the SYNERGIC.PRO® 304 to 504 at the push of a button:

- Higher deposition rate than spray arc
- Welding with a short, powerful arc
- Safe root detection
- Safe edge detection
- Reduced undercuts

**NEW &
UNIQUE**

Penetration stabilizer

The SYNERGIC.PRO® detects changes in the stick-out (free wire end) and automatically corrects the arc power. That means uniform penetration in every position.

Mains voltage compensation

The SYNERGIC.PRO® automatically detects fluctuations in the mains voltage and adjusts the wire feeder automatically according to the mains voltage.

Robust undercarriage

Designed for 50 l gas bottles, with large wheels (front 160 mm, rear 250 mm)





SYNERGIC.PRO® 251-402 W – The all-rounders for industry and craft, for thin sheet metal and medium sheet thicknesses

Welding parameter setting

The integrated database provides the right welding parameters for all tasks.

Weldable materials

- Fe
- CrNi
- Alu
- CuSi3

Welding from a sensational 15 A

The SYNERGIC.PRO® 251 QUATTRO-MIG is particularly suitable for use in thin sheet processing from 15 A welding current.

Thanks to the special synergy programs and SDI technology.

Internal regulation

The internal regulation is also decisive for a stable arc, which depends primarily on the welding transformer and welding choke. The SYNERGIC.PRO® series has transformers and chokes specially designed for the respective power range.

The fine tuning is done by SDI and the process parameters that are assigned to each setting.



SYNERGIC.PRO® – MIG / MAG welding with the best in its class!

Find the right performance class for you and experience the best „heavy duty machines” for MIG / MAG welding.

Heavy duty machines for tough industrial use

SYNERGIC.PRO® 304, 404, 504

- Water-cooled, gas-cooled
- Compact or with a separate feed case



The all-rounders for industry and craft, for thin sheet metal and medium sheet thicknesses



SYNERGIC.PRO® 352, 402

- Water-cooled, gas-cooled



SYNERGIC.PRO® 251, 311, 351

- Gas-cooled

SYNERGIC.PRO® – The only MIG / MAG efficiency class with SMC®

Just weld - SMC® technology does the rest!

- More power with absolutely robust and proven technology
- With an extended range of types
- Best price-performance ratio
- With the revolutionary Smart Machine Control (SMC®)

The superordinate machine control concept from REHM



SMC® (Smart Machine Control)

An intelligent, higher level machine control concept. SMC® leads to excellent welding results and makes operation not only easy, but also safe.

SDI (Stepless Dynamic Induction)

Stepless, electronic welding choke with ultra-fast control for excellent ignition properties and an extremely stable arc.

RSC® (Realtime Speed Control)

Real time monitoring and high precision regulation of the wire feed speed with digital signal transmitter for constant wire feed.

CCM (Characteristic Curve Memory)

Integrated welding parameter database with concentrated expert knowledge.

RMI (REHM Machine Interface)

Fast and safe setting of the welding parameters with easy handling.

■ CONTROL PANEL RMI (REHM MACHINE INTERFACE)

The fastest and safest way to set the correct welding parameters.

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|---|--|
| <ul style="list-style-type: none"> 1 Digital display for welding voltage with hold function 2 Digital display for welding current with hold function and material thickness display 3 Operating modes: Material thickness display <ul style="list-style-type: none"> ■ 2 cycle, 4 cycle, spot-weld, interval | <ul style="list-style-type: none"> 4 Setting the spot-weld and interval time 5 Rotary knob for wire speed rate and arc length correction 6 Synergy program selection: Material / wire diameter combination and manual operation |
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| <ul style="list-style-type: none"> 7 Stepless arc strength regulation (SDI® technology) 8 Coarse step switch | <ul style="list-style-type: none"> 9 Fine step switch 10 REHM FOCUS.ARC Switching on / off |
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Pure reliability

Proven technology

All device parts of the SYNERGIC.PRO® series, right down to the smallest screw, have been tested in sophisticated endurance tests for tough use.
A factory guarantee of three years is therefore a matter of course for us.

Safe ignition

The REHM automatic creep function controls the wire feed rate until the ignition of the arc. At the same time, the ignition process is considerably improved by the optimized setting of the electronically regulated choke. The creep speed can also be adjusted manually if required.

Low noise emission

The optimum housing construction and the standby switch for fan and water pump ensure pleasant, low noise continuous use.

No sticking

The controlled wire feed control ensures a constant wire length end automatically the correct wire free burn time guaranteed. This prevents it from sticking to the workpiece or the contact tip. If necessary, the wire free burning time can also be changed manually.

Even wire feed

A powerful, digitally controlled feed motor ensures sufficient power in the wire drive.

All SYNERGIC.PRO® devices have a 4 roller precision feed system.
The conveyor rollers can easily be changed without tools.



Easy to use wire feed case

Although the wire feed case sits securely on the power source, it can be rotated easily.

It goes without saying that it can be easily removed with a handle without any tools and can also be used with mounted trolley (optional).

Easily maneuverable

Thanks to the robust chassis with large, smooth running wheels, the devices can be easily maneuvered and transported in the workshop and on the construction site. They are also suitable for crane or forklift transport (304, 404, 504).

Intermediate hose packages

The SYNERGIC.PRO® intermediate hose packages come with a robust metal strain relief as standard attached to the feed case. All media and control lines can be changed without tools.



Individual adaptation

With the possible options and retrofittable equipment, turn our welding machines into your individual machine.



Suitable accessories

Achieve the best welding results with REHM original accessories.



■ SYNERGIC.PRO® 304 to 504 WS

TECHNICAL SPECIFICATIONS		304	404	504
Setting range	[A]	40-300	40-400	40-500
Duty cycle (ED) at I _{max} .	[%]	40		
Weld current at 100 % ED	[A]	180	260	320
Open-circuit voltage	[V]	17-37	18-45	18-51
Switching steps		10	20	30
Wire feed		4 rollers		
Mains connection	[V]	3 x 400		
Fuse	[A]	32		
Torch cooling		gas / water		
Protection type		IP 23		
Welding cable socket	[mm]	13		
Weight	[kg]			
Compact gas-cooled		104	128	133
Compact water-cooled (W)		117	141	146
Gas-cooled with wire feed unit (S)		120	144	149
Water-cooled with wire feed unit (WS)		133	157	162
Dimension LxWxH	[mm]			
Compact		1,040 x 560 x 850		
With wire feed unit		1,040 x 560 x 1,400		
Gas-cooled		1122200	1122210	1122220
Gas-cooled with wire feed unit (S)		1122201	1122211	1122221
Water-cooled (W)		1122202	1122212	1122222
Water-cooled with wire feed unit (WS)		1122203	1122213	1122223



SYNERGIC.PRO® 304-4 W



SYNERGIC.PRO® 504-4 WS

■ SYNERGIC.PRO® 251 to 402 W

TECHNICAL SPECIFICATION	251	311	351	352	402
Setting range [A]	15-250	35-300	35-350		40-400
Duty cycle (ED) at I _{max} . [%]	35				
Welding current at 100 % ED [A]	140	185	210		260
Open-circuit voltage [V]	15-39	17-40	17-42		18-45
Switching steps	10		12		20
Wire feed	4 rollers				
Mains connection [V]	3 x 400				
Fuse [A]	16		32		
Torch cooling	gas			gas / water	
Protection type	IP 21				
Welding cable socket [mm]	13				
Weight [kg]					
Compact gas-cooled	64	68	69	72	78
Compact water-cooled (W)	-	-	-	85	91
Dimension LxWxH [mm]					
Compact	800 x 330 x 620			877 x 357 x 660	
Gas-cooled	1031125	1031126	1031127	1031130	1031135
Water-cooled (W)	-	-	-	1031131	1031136



SYNERGIC.PRO® 351-4



SYNERGIC.PRO® 402-4 W

THE REHM PERFORMANCE PROGRAM

- REHM MIG / MAG welding machines
- REHM TIG welding machines
- REHM MMA electrode inverter
- REHM PLASMA cutting systems
- Welding accessories and consumables
- Welding fume extraction
- Technical welding advice
- Torch repairs
- Service

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