

Degauss 600 / Pico 350 cel puls pws dgs

Degaussing of pipes and metal sheets



/ Degaussing of magnetic components before and during welding

/ Reliable welding process with no magnetic deflection of the arc



Degauss 600



Pico 350 cel puls pws dgs



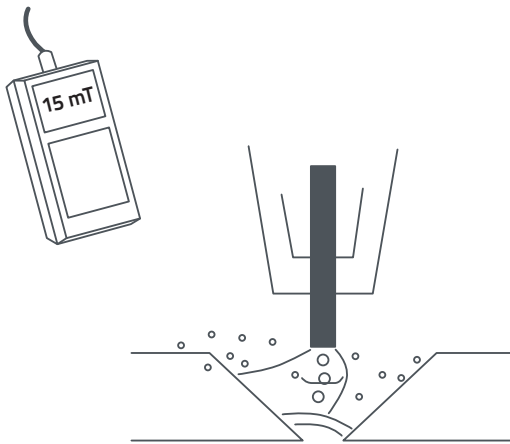
Save money, improve quality

Arc deflection caused by magnetism is a thing of the past.

Magnetism is undesirable wherever steel is being welded. Residual magnetism in a component results in an unstable and deflected arc. The effect may be so great that welding is impossible.

Without degaussing

Workpiece is magnetised >> Heavy arc deflection

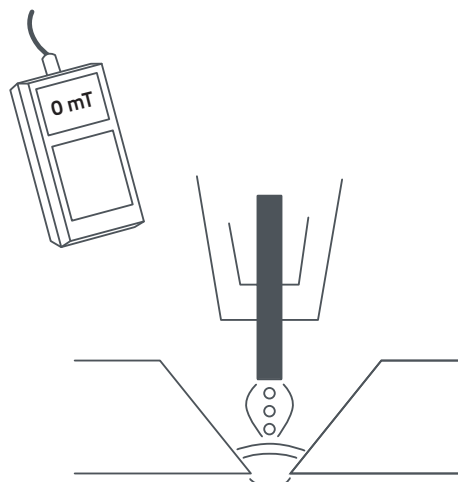


Workpiece was degaussed with the Degauss 600 or Pico 350 cel puls pws dgs >> No arc deflection

With degaussing



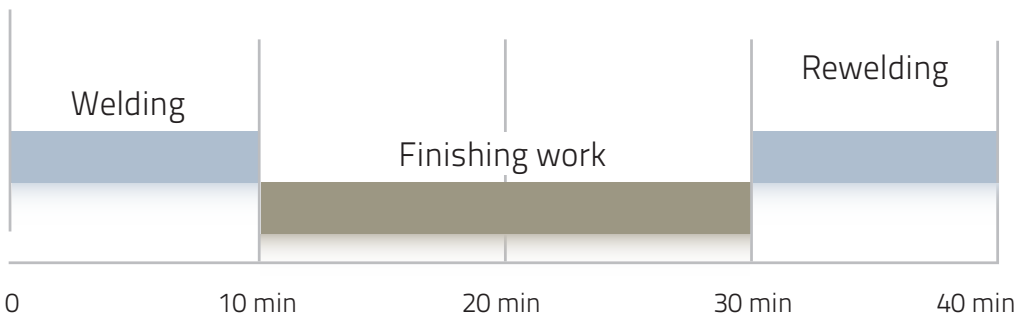
Degauss 600
Degaussing machine



Pico 350 cel puls pws dgs
MMA Welding machine with degaussing function

» Inadequate welding results mean considerable finishing work, loss of time and high additional expenses

40 min of work – without degaussing



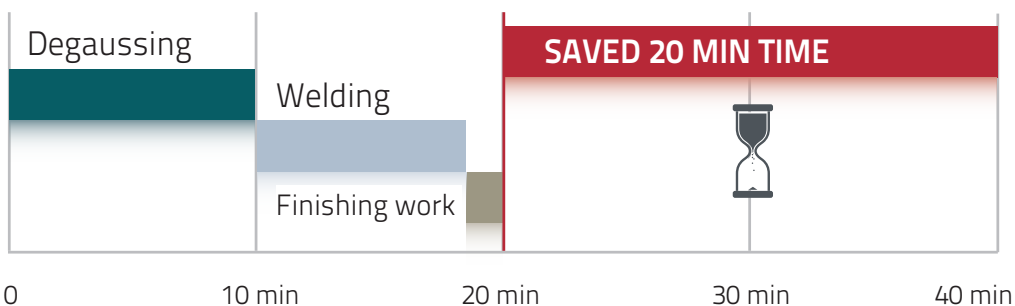
Example: 200-mm-diameter pipe with a wall thickness of 20 mm and a length of 10 m

Magnetism in the workpiece causes:

- / Instability of the arc
- / Uneven droplet detachment
- / Heavy spatter formation
- / Uneven sidewall fusion

» Reduce expenses, conserve resources and increase quality through high-quality welding results, minimising of finishing work and reducing material and gas consumption

20 min of work – with degaussing



Example: 200-mm-diameter pipe with a wall thickness of 20 mm and a length of 10 m

Outstanding welding results:

- / Stable arc
- / Even droplet detachment
- / Spatter-free
- / Good sidewall fusion



Save money, improve quality

Arc deflection caused by magnetism is a thing of the past.

Magnetism caused by the mechanical separation of components, filing in preparation for welding or due to grinding processes occurs particularly frequently. For high-quality welding results, we recommend degaussing after mechanical processing and before the actual welding process (Application 1). Application is very easy thanks to automatic running of the degaussing program.

With very long, thick-walled and hard-to-reach components which are heavily magnetised, the magnetic field may return after degaussing. In this case, we recommend the "activgauss" function. Here, an opposing magnetic field is generated during the welding process (Application 2).

Application 1

Degaussing prior to welding

"Degaussing prior to welding" is especially suitable for pipes and metal sheets with a length of up to about 10 metres and a prevailing magnetic field strength of up to 20 mT.

Degauss 600



Fields of application

- / Ferromagnetic materials and components
- / Up to 10 m component lengths
- / Up to 20 mT field strength

Very straightforward handling

- / Single button operation – automatic degaussing
- / Quick connection to the component thanks to the practical load cable set



Application 2

activgauss – Generation of an opposing magnetic field during the welding process

With very long and thick-walled components, Application 2, "Magnetising during welding" is used (for example in crane construction and with kilometre-long pipe construction).

Degauss 600



Degaussing **during** the welding process

Fields of application

- / For very heavily magnetised, **long** and thick-walled ferromagnetic components
- / > 10 m component length
- / > 20 mT field strength

Very straightforward handling

- / Practical remote control for
- / Setting the current for generating an adequately large opposing field
- / Controlling degaussing (current on/off and polarity changes)
- / Quick connection to the workpiece thanks to the practical load cable set

Degaussing of pipes and metal sheets



Degaussing

Degauss 600

The Degauss 600 machine is suitable both for degaussing before the welding process and during the welding process.



Accessories:
Magnetic field meter

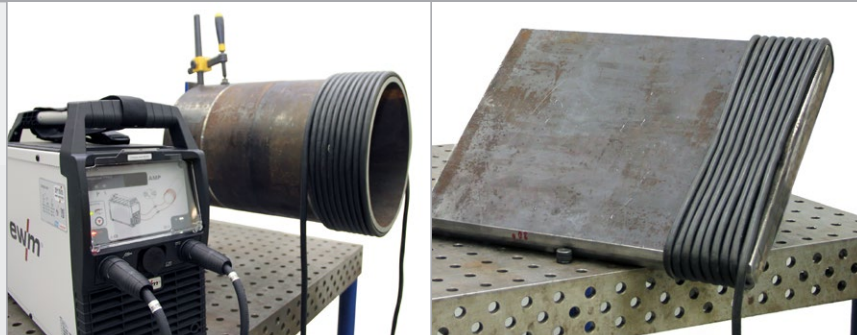


How this benefits you – Degausser

- / Compact and suitable for construction sites
- / Portable and robust
- / High mains voltage tolerances +/- 20%
- / 100% generator-compatible

Technical data

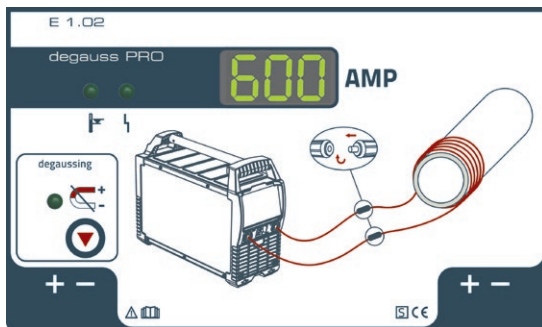
Mains voltage:	3 x 400 V / 16 A
Temperature range:	-25 °C to +40 °C
Dimensions (L x W x H):	600 x 205 x 415 mm
Weight:	25 kg



Degauss 600 set



Machine control E 1.02



Remote control RT DGS1



Magnetic field meter



Your benefits

Very straightforward handling

- / The set includes all components required for degaussing
- / Quick connection to the pipe using three load cables with welding sockets and plugs

Controls degaussing prior to welding (Application 1)

- / Single button operation
- / Automatic degaussing

Controls degaussing during welding – activgauss (Application 2)

- / Remote control RT DGS1 activates the activgauss function
- / Continuously adjustable current for generation of the required opposing magnetic field
- / Polarity reversing switch, start/stop function
- / Operation directly at the welding site

For measuring magnetic direct and alternating fields

- / Hand-held unit for operation with mains, battery or power-pack
- / Three measuring ranges: 20 mT, 200 mT and 2,000 mT
- / LCD digital display
- / Resolution: 0.01 mT

Degaussing and welding with a single machine



Degaussing



MMA welding



MAG CC-CV



TIG (lift arc)

Pico 350 cel puls pws dgs

Resistant to cold, heat, rain and dirt, extremely rugged for the toughest usage and, thanks to its light weight, ideal for changing deployment locations!

100% safe for vertical-down welding of CEL electrodes

MAG welding with Pico drive 4L or Pico drive 200C wire feeder

Degaussing of pipes and metal sheets prior to welding

Especially durable

- / Control panel protective cover as standard

Highly practical

- / Rugged carrying handle with shoulder strap
- / Mains cable bracket as standard

Degaussing

- / Automatic degaussing function for the removal of residual magnetism in pipes and metal sheets

IP34s protection

- / All-round protection against splash water

Polarity-reversing device

- / Integrated as standard equipment (PWS version)

Optimum protection

- / Protection against the ingress of foreign objects
- / Insertable protective dust filter (optional)

For tough jobs

- / Ruggedly-designed base enables placement in dirty and wet environments



Pico 350 cel puls pws dgs

Mains voltage:	3 x 400 V (-25% to +20%)
Mains fuse:	3 x 16 A
Open circuit voltage:	95 V
Welding current:	10–350 A
Duty cycle:	350 A, 35% 280 A, 60% 230 A, 100%
cos φ:	0.99
Efficiency:	88%



Pico 350 cel puls pws dgs
with E-1.03 control
(MMA Pro PWS)
Selectable polarity



Pico drive 4L or Pico drive 200C
Versatile in use thanks to MAG CC-CV for
MAG welding and for self-shielded flux
cored wires



Pico 350 cel puls pws dgs
with cable set
For degaussing prior to
welding

Your benefits

Built for the most extreme demands

- / Inspected protection against splash water (IP34s)
- / Ruggedly-designed base enables placement in dirty and wet environments
- / Durability thanks to replaceable filters

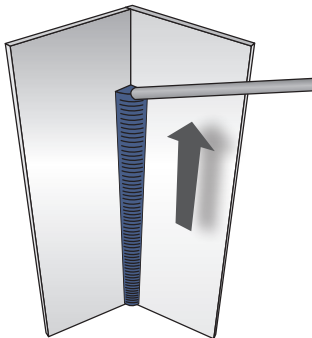


Maximum functionality – easiest operation

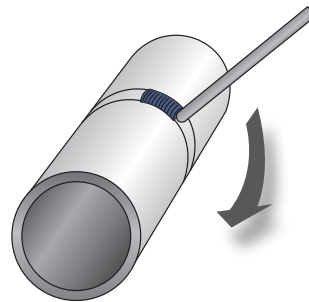
- / Polarity can be reversed by pressing a button (POL)
- / Energy efficient thanks to standby mode
- / **Automatic degaussing process**
- / Easiest operation, even for novices, thanks to self-explanatory, well-laid-out operating panel



Vertical-up weld PF



Vertical-down weld PG



Very easy vertical-up and vertical-down welds

- / 100% reliable vertical down welding
- / Perfect electrode vertical-up welding thanks to PF pulse function
- / Pulsing (MMA pulsing)
- / Automated pulsing

For use in all climate zones around the world

- / Temperature range of operating machines: -25 °C to +40 °C
- / Temperature range for transport and storage: -30 °C to +70 °C
- / 100% generator compatibility
- / High mains voltage tolerances (-25% to +20%)

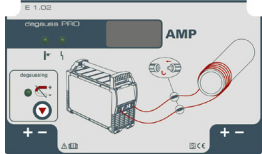




Degauss 600



E1.02



- Degaussing of pipes and metal sheets
- Automatic degaussing
- Dependable degaussing for better welding results through stable welding process without magnetic deflection, minimisation of finishing work
- Portable and robust
- Quick connection at the pipe by means of three load cables
- Use at -25 °C to +40 °C with mains voltage tolerances of +/- 20%
 - **Advantages of degaussing:**
 - No deflection of the arc by residual magnetism in the workpiece
 - Prevention of lack of fusion due to insufficient sidewall fusion
 - Minimisation of finishing work
 - Cost-efficient and high-quality results

Mains voltage (tolerances)	3 x 400 V (-25 % - +20 %)
Mains fuses (slow-blow)	3 x 16 A
Degaussing current	600 A
cos φ	0,99
Efficiency	90 %
External dimensions, compl.	600 x 205 x 415
Weight	23,5 kg

Type	Designation	Item no.
Set Degauss 600	Set: Degauss 600 degaussing machine, two 5-metre, 35 mm ² load cables, one 20-metre, 35 mm ² load cable, RT DGS1 remote control and 5-m connection cable	091-002065-00502
OW CEE 16A	Factory-fit option, mains plug including fitting	092-008214-00000

RT DGS1



- Remote control with a polarity reversing switch and start/stop function for Degauss 600
- Remote control activates additional function – generation of an opposing magnetic field during the welding process
- Infinitely adjustable current (0% to 100%) to produce the required opposing magnetic field directly at the welding site

Type	Designation	Item no.
RT DGS1	Degauss remote control	090-008806-00000
RA5 19POL 5m	Connection cable e.g for remote control	092-001470-00005

FIM1-4 Set



- Magnetic field meter for measuring magnetic direct and alternating fields
- Three possible measuring ranges: 20 mT, 200 mT and 2000 mT
- Hand-held unit for operation with mains, battery or power-pack
- LCD digital display
- Measuring accuracy: ±2% of measured value ±1 digit using internal calibration voltage, better than ±1% of measured value ±1 digit using calibrated comparison magnet
- Resolution: 0.01 mT
- Output: ±199.9 mV analogue output corresponding to 1,999 digits, connection for analogue display, X-Y plotter and A-D converter
- Operating time: about 100 hours with dry-cell battery, about 50 hours with power-pack charge (power pack not included)

External dimensions, compl. in mm	145 x 80 x 38
Weight	0.8 kg

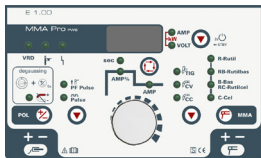
Type	Designation	Item no.
FIM1-4 Set	Set: magnetic field meter, including Hall effect sensor	092-002937-00000



Pico 350 cel puls pws dgs



E1.00



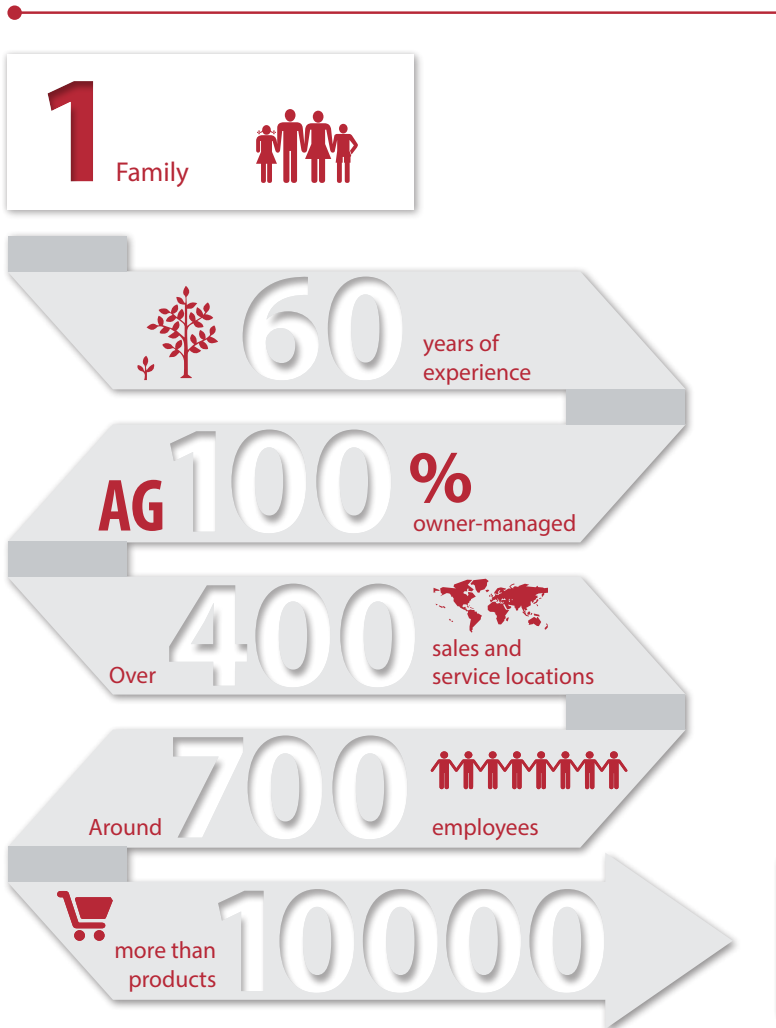
- MMA inverter welding machine, polarity reversing switch, degaussing
- GMAW welding with Pico drive 4L or Pico drive 200C wire feeder
- Suitable for flux cored wire welding
- CC/CV characteristic
- Degaussing function: Automatic degaussing of pipes and metal sheets prior to welding
- Stick electrode/MMA for all electrode types
- Stick electrode/MMA cellulose electrodes: 100% safe for vertical-down welding
- MMA/MMA pulse welding:
 - Particularly suitable for root welding
 - Very suitable for difficult electrodes
 - Outstanding gap bridging with no sagging of the root side
 - Less distortion due to controlled heat input
 - Less finishing work due to less spatter
 - Fine-flaked weld surface similar to a TIG look for final passes
- Welding polarity can be reversed by pressing a button (polarity reversing switch)
- Perfect vertical-up welding through PF pulse function
- Portable, shoulder strap
- Adjustable hot start current and hot start time
- Adjustable Arcforce
- Antistick function
- TIG lift arc welding
- Robust design suitable for construction site use
- Impact-resistant casing
- Inspected protection against splash water (IP-34s)
- Energy-saving thanks to high efficiency and standby function
- 5 m mains supply lead
- Mains connection 3 x 400 V/16 A



Mains voltage (tolerances)	3 x 400 V (-25 % - +20 %)
Mains fuses (slow-blow)	3 x 16 A
Open circuit voltage	95 V
Setting range for welding current	10 A - 350 A
Duty cycle 40 °C	350 A / 35 %
	280 A / 60 %
	230 A / 100 %
cos φ	0,99
Efficiency	88 %
Dimensions LxWxH in mm	600 x 205 x 415
Weight	25 kg

Type	Designation	Item no.
Pico 350 cel puls pws dgs	MMA inverter welding machine, polarity reversing switch, degaussing	090-002127-00502
Set LC 35 mm²	Set: Two 5-metre load cables (35 mm ²) and one 20-metre load cable (35 mm ²) for degaussing	092-002921-00000
WK50 mm² 4m/K	Welding lead	092-000003-00000
EH 50qmm 4m	Electrode holder with cable	092-000004-00000
OW CEE 16A	Factory-fit option, mains plug including fitting	092-008214-00000

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EWM AG is Germany's largest and one of the most important world-wide manufacturers of arc welding technology and a major driving force in welding technology.

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