MMA



## PICO

## MMA WELDING MADE EASY, WHEREVER YOU NEED



# **PICO** THE PICO FAMILY.

In places where MMA welding machines are used, it's usually quite dirty. At EWM, we take that into consideration. Our MMA welding machines stand out with their excellent robustness and longer-than-average service life. High mains voltage tolerances and power reserves make our MMA welding machines the perfect companion on the construction or assembly site. They deliver their high performance even when connected to a generator or long mains leads.



## THE BENEFITS TO YOU +

- Unlimited generator operation even with long mains leads thanks to high mains voltage tolerances
- Easy one-knob operation
- Increased comfort while welding
- Rugged design suitable for construction site use
- Shock-resistant casing
- Portable with handle or carrying strap
- Saves power thanks to excellent efficiency



## PICO 200 CEL PULS

The Pico 200 cel puls is a state-of-the-art MMA welding machine with an innovative pulsing function. It enables you to weld safely and precisely and has extra characteristics for welding cellulose electrodes.

Thanks to its multi-volt/multi-voltage capability, the machine automatically adapts to different mains voltages (110–120 V / 230 V) and can therefore be used worldwide without any problems. The highly efficient power consumption is guaranteed by the integrated PFC (Power Factor Correction) technology, which ensures optimum performance and energy efficiency.

If you opt for the Pico 200 cel puls, you benefit from a powerful, flexible and user-friendly welding machine. It is your reliable partner for MMA welding.

Mains cable bracket Allows you to easily wind up the cable.



Optionally available and is mounted to the back of the welding machine (second illustration below).

# **Convenient QR code**

All important information is available quickly, directly above the controls and in digital format - i.e. operating instructions, accessories, other retrofitting options and much more.

### **Protective cap**

Effectively protects the controls against splash water, dirt and impact.

**IP23** protection Effective all-round protection

against splash water and other external influences.

### **Robust base**

Suitable for tough jobs, as it can be set down even in dirty and wet environments. Multivolt/multivoltage capable Automatic mains voltage adaptation (110 - 120 V / 230 V)



Carrying handle with storage compartment



Dirt filter



Remote control (also wireless in combination with a dongle.)



Mains cable bracket

## **PICO 160 CEL PULS**

The Pico 160 cel puls is an extremely lightweight welding machine weighing in at only 4.7 kg, making it one of the lightest on the market. Thanks to this and the included carrying strap, it's especially practical and easy to transport – at the construction site, over stairs and ladders, in steel construction and on scaffolding. Under tough conditions in building construction, civil engineering, mining and other sites, the Pico 160 cel puls also impresses with its easy handling and welding of cellulose electrodes, which is 100% safe for vertical-down welding.



**Wide mains voltage tolerance range** From -40 to +15% for trouble-free operation with generators. A safety plug for the 230 V mains connection is provided. **Remote control connection** Connection for the RG13 remote control with 3.5 mm jack plug\*



**Remote control** 



Dirt filter



Handle (160 as ON) Pico 350/400 series



L-BOXX



## PICO 350/400

### Available in the following versions: cel puls / cel puls prs / cel puls prs dgs.

Resistant to extreme weather conditions. Extremely robust for the toughest conditions and ideal for changing deployment locations due to its low weight.

The Pico 350 and Pico 400 welding machines are 100% safe for vertical-down welding of cellulose electrodes. The Pico drive 4L wire feeder makes MIG/MAG welding easy as well. But that's not all: Demagnetising pipes and sheets before welding is also extremely easy with these two welding machines.

### You can conveniently wind up the mains

cable on the cable holder of the handle.

### **Polarity-reversing device**

It is integrated as standard (pole reversing switch version) and saves the time-consuming conversion when a change in polarity is necessary.

#### **IP34 protection**

Effective all-round protection against penetration of splash water and solid debris.



### Protective cap

Splash water, dirt and impact cannot harm the controls thanks to the cap.

### Robust base

Stands up to the toughest jobs and can be set down in dirty and wet conditions.

### Insertable protective dust filter

Mounted on the back of the welding machine (second illustration below), available as an option.







Pico drive 4L



Remote control for MMA welding



Trolly 54 with ON TA TR.21

## PICO

# THE WELDING FUNCTIONS.

## FOR OPTIMAL WELDING RESULTS.

Maximum ease of use, long service life and all welding functions included in the machine at no extra charge. This guarantees perfect weld seams.

| PICO 160   | PICO 160   | PICO 162   |
|--|--|--|
|  | CEL PULS   | MV   |
| MMA welding  | MMA welding  | MMA welding  |
| TIG lift arc welding   | MMA and TIG puls   | TIG lift arc welding   |
| Arcforce   | TIG lift arc welding   | Arcforce   |
| Hot start  | Cel characteristic   | Hot start  |
| Antistick  | Arcforce   | Antistick  |
|  | activgauss   | _  |
|  | Hot start  | _  |
|  | Antistick  |  |
| PICO 300   | PICO 350   | PICO 350   |
|  |  |  |
| CEL PRS  | CEL PULS   | CEL PULS PRS   |
| CEL PRS<br>MMA welding   | CEL PULS<br>MMA welding  | CEL PULS PRS   |
| CEL PRS  | CEL PULS   | CEL PULS PRS   |
| CEL PRS<br>MMA welding<br>TIG lift arc welding   | CEL PULS<br>MMA welding  | CEL PULS PRS   |
| CEL PRS<br>MMA welding<br>TIG lift arc welding<br>Cel characteristic                                       | CEL PULS<br>MMA welding<br>MMA and TIG puls  | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls  |
|  | CEL PULS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic  | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic  |
| CEL PRS<br>MMA welding<br>TIG lift arc welding<br>Cel characteristic<br>Arcforce                           | CEL PULS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding  | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding  |
| CEL PRS<br>MMA welding<br>TIG lift arc welding<br>Cel characteristic<br>Arcforce<br>Hot start              | CEL PULS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function                                   | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function                                   |
| CEL PRS<br>MMA welding<br>TIG lift arc welding<br>Cel characteristic<br>Arcforce<br>Hot start<br>Antistick | CEL PULS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function<br>Cel characteristic             | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function<br>Cel characteristic             |
| CEL PRS<br>MMA welding<br>TIG lift arc welding<br>Cel characteristic<br>Arcforce<br>Hot start<br>Antistick | CEL PULS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function<br>Cel characteristic<br>Arcforce | CEL PULS PRS<br>MMA welding<br>MMA and TIG puls<br>CC/CV characteristic<br>TIG lift arc welding<br>PF pulse function<br>Cel characteristic<br>Arcforce |

### Arcforce

Active power control for constant penetration conditions and secure root fusion, even when positional welding and welding in hard-to-reach positions.

#### Cellulose welding

100% safe vertical down welding with cellulose electrodes

### MMA pulse welding

Simple positional welding thanks to continuous welding current fluctuation

### activgauss

Automatic degaussing function for the removal of residual magnetism in pipes and sheet metal





MMA wolding





## PICO 200

CEL PULS

| MMA welding            |
|------------------------|
| MMA and TIG puls       |
| TIG lift arc welding   |
| Cel characteristic     |
| Rutile characteristics |
| Basic characteristics  |
| Arcforce               |
| Hot start              |
| Antistick              |
| spotArc®               |
| <b>PICO 350</b>        |

CEL PULS PRS DGS

MMA welding

MMA and TIG puls

CC/CV characteristic

**TIG lift arc welding** 

PF pulse function

Cel characteristic

Arcforce activgauss

Hot start Antistick PICO 220 CEL PULS

| MMA welding          |
|----------------------|
| MMA and TIG puls     |
| TIG lift arc welding |
| Cel characteristic   |
| Arcforce             |
| Hot start            |
| Antistick            |
|                      |

### PICO 300 CEL

| MMA welding          |  |
|----------------------|--|
| TIG lift arc welding |  |
| Cel characteristic   |  |
| Arcforce             |  |
| Hot start            |  |
| Antistick            |  |

| PICO 40              |
|----------------------|
| CEL PULS             |
| MMA welding          |
| MMA and TIG puls     |
| CC/CV characteris    |
| TIG lift arc welding |
| PF pulse function    |
| Cel characteristic   |
| Arcforce             |
| Hot start            |
| Antistick            |

### MMA welding MMA and TIG puls CC/CV characteristic TIG lift arc welding PF pulse function Cel characteristic Arcforce Hot start Antistick Welding polarity (PRS)

**PICO 400** 

CEL PULS PRS

### CC/CV characteristic

Welding polarity (PRS)

MIG/MAG welding with optional Pico drive 4L wire feeder

### Antistick

Prevents the electrode from annealing

### Hot start

Safe ignition of the arc with increased amperage and sufficient heating on the still-cold parent metal at the start of welding

### spotArc®

Minimises the time required for tacking and spot welding thanks to individual triggering of the tack points with the torch trigger.

### Welding polarity (PRS)

Pole reversal on the machine or via remote control saves time-consuming reconnecting of welding current connections

# PICO ACCESSORIES.





+ CARRYING STRAP

Carrying strap for easier transport. Ideal for use on the go and on frequently changing work sites.

• for Pico 160/162/200/220/300/350/400



### GRIP

Easier transport. • for Pico 160/160 cel puls



Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine Thanks to the separately available BT dongle, it is also compatible with many welding machines with a 19-pin interface.



## TRANSPORT CART

For transporting a power source and a cooling unit or a toolbox

+



TRANSPORT CART +

For transporting a power source and a shielding gas cylinder up to 33 l (300 bar). • for Pico 200/220



## TRANSPORT CART -

For transporting a power source, cooling unit or toolbox and a shielding gas cylinder up to 33 I (200 bar).

• for Pico 350/400





## REMOTE CONTROL RG13 RS-453

Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine

• for Pico 160 cel puls

## + REMOTE CONTROL RT1 19POL

Infinitely adjustable welding current(0% to 100%) depending on the main currentpreselected at the welding machinefor Pico 200/220/300/350/400



## + FOOT-OPERATED + REMOTE CONTROL RTF-X TIG 19POL 5 M

Infinitely adjustable welding current (0% to 100%) depending on the main current preselected at the welding machine



## SAFEGUARD

Lightweight and robust cover for harsh environments. Easy to clean.

• For Pico 180/220



+ PICO DRIVE 4L

MIG/MAG wire feeder.

 for Pico 350 cel puls / 350 cel puls prs / 350 cel puls prs dgs / 400 cel puls / 400 cel puls prs



# PICO TECHNICAL DATA.

| PICO   | 160   | 160 cel puls                                  | 162 MW  |
|--|---|---|---|
| Setting range for welding current                          | 10-150 A                                      | 5–150 A                                       | 10-150 A                                      |
| Duty cycle (DC) at 40 °C                                   | 150 A / 35 %<br>120 A / 60 %<br>100 A / 100 % | 150 A / 30 %<br>120 A / 60 %<br>110 A / 100 % | 150 A / 35 %<br>120 A / 60 %<br>100 A / 100 % |
| Open circuit voltage                                       | 105 V   | 94V   | 105V  |
| Mains voltage / tolerance                                  | 1 x 230 V (-40% to +15%)                      |   |   |
| Mains frequency  | 50/60 Hz                                      |   |   |
| Insulation class /<br>protection classification            | H / IP23                                      |   |   |
| Product certification                                      | S C € 印 出                                     |   |   |
| EMC class  | А   |   |   |
| Dimensions (L x W x H) mm<br>Dimensions (L x W x H) inches | 370 x 129 x 236<br>14.6 x 5.1 x 9.3           |   | 361 x 136 x 224<br>14.2 x 5.4 x 8.8           |
| Weight in kg<br>Weight in Ibs                              | 4,9<br>10.8                                   |   | 5,4<br>11.9                                   |
| Standards  | IEC 60974-1, -10 CL.A                         |   |   |
| Remote control connection                                  | 3.5 mm jack plug                              |   |   |

| PICO   | 350 cel puls                                  | 350 cel puls<br>prs | 350 cel puls<br>prs dgs |
|--|---|---------------------|-------------------------|
| Setting range for welding current                          |   | 10 – 350 A          |                         |
| Duty cycle (DC) at 40 °C                                   | 350 A / 35 %<br>280 A / 60 %<br>230 A / 100 % |                     |                         |
| Open circuit voltage                                       | 95V   |                     |                         |
| Mains voltage / tolerance                                  | 3 x 400 V (-25% to +20%)                      |                     |                         |
| Mains frequency  | 50/60 Hz                                      |                     |                         |
| Insulation class /<br>protection classification            | H / IP34                                      |                     |                         |
| Product certification                                      | S C € 册 监                                     |                     |                         |
| EMC class  | A   |                     |                         |
| Dimensions (L x W x H) mm<br>Dimensions (L x W x H) inches | 539 x 210 x 415<br>21.2 x 8.3 x 16.3          |                     |                         |
| Weight in kg<br>Weight in Ibs                              | 23,5 25,0<br>51.8 55.1                        |                     |                         |
| Standards  | IEC 60974-1, -10 CL.A                         |                     |                         |
| Remote control connection                                  | 19-pole                                       |                     |                         |



| Pico 200    |   |
|-------------|---|
| cel puls    |   |
| - Multivolt |   |
| 230 V       | h |
| 110 - 120 V | Į |

| ew/m                        | 200 cel puls                      | 220 cel puls     | توريخي 300 cel         | 300 cel prs       |
|-----------------------------|-----------------------------------|------------------|------------------------|-------------------|
| 5 – 200 A                   | 5-120 A                           | 10-220 A         | 10-3                   | 00 A              |
| 200 A / 30 %                | 120 A / 40 %                      | 220 A / 30 %     | 300 A /                | 25%               |
| 155 A / 60 %                | 100 A / 60 %                      | 160 A / 60 %     | 220 A / 60 %           |                   |
| 125 A / 100 %               | 85 A / 100%                       | 140 A / 100 %    | 170 A / 100 %          |                   |
| 97 V                        |                                   | 107              | ٧V                     |                   |
| 1 x 230 V (-40%<br>to +15%) | 1 x 110 - 120V<br>(-15% bis +15%) |                  | 3 x 400 (-25% to +20%) |                   |
|                             |                                   | 50/6             | 0 Hz                   |                   |
|                             |                                   | H/I              | P23                    |                   |
|                             |                                   | S ( €            | EAC 54                 |                   |
|                             |                                   | ŀ                | l.                     |                   |
| 454 x 165 x 321             |                                   | 428 x 136 x 252  | 490 x 186 x 350        | 490 x 186 x 446   |
| 17.9 x 6.5 x 12.6           |                                   | 16.9 x 5.4 x 9.9 | 19.3 x 7.3 x 13.8      | 19.3 x 7.3 x 17.6 |
| 10                          |                                   | 10,5             | 16,5                   | 23,5              |
| 22                          | 22.0 23.1                         |                  | 36.4                   | 51.8              |
|                             |                                   | IEC 60974-       | 1, -10 CL.A            |                   |
|                             |                                   | 19-r             | pole                   |                   |

| 400 cel puls                                  | 400 cel puls<br>prs |
|---|---------------------|
| 10-400 A                                      |                     |
| 400 A / 25 %<br>280 A / 60 %<br>230 A / 100 % |                     |
| 95 V  |                     |
| 3 x 400 V (-25% to +20                        | %)                  |
| 50/60 Hz                                      |                     |
| H / IP34                                      |                     |
| S C € ERC ĽK                                  |                     |
| А   |                     |
| 539 x 210 x 415<br>21.2 x 8.3 x 16.3          |                     |
| 23,5  | 25,0                |
| 51.8  | 55.1                |
| IEC 60974-1, -10 CL.A                         |                     |
| 19-pole                                       |                     |
|   |                     |



### We're happy to help: **sales@ewm-group.com**

EWM is your partner for the best welding technology. With EWM, you'll weld more efficiently, more reliably and produce higher-quality results. EWM's innovative systems, high-performance welding procedures, digital technologies and services, as well as expert consultation, support you in achieving perfect results in your welding tasks.



#### EWM GmbH

Dr. Günter-Henle-Straße 8 56271 Mündersbach Germany

Tel.: +49 2680 181-0 Fax: +49 2680 181 244 E-mail: info@ewm-group.com



www.ewm-group.com

The contents of this document were researched, checked and edited with care. However, it is still subject to alterations, writing errors and mistakes.