

# EWM Welding Technology

Everything from a single source.





# WE ARE WELDING

EWM AG is Germany's largest manufacturer of arc welding technology and is one of the leading suppliers worldwide. Our aim is to be the first and the best when it comes to technology, quality and customer benefit.

As an innovation leader, we have been actively driving best engineering practice in our industry for more than 60 years and develop, together with our partners and customers, the welding technology of the future to make welding processes more economical, safer and resource-saving.

Our company and our success are made by people who feel connected to a common spirit and a common passion. We are an internationally active family-run company with our headquarters in Mündersbach, Germany.

You can rely on our word – just as you can on the welds made using our technology.

*We love welding · We live welding · We are welding*



*Robert Stöckl, Management, Sales | Michael Szczesny, Management, Development | Susanne Szczesny-Oßing, Chair of the Supervisory Board*

## EWM Welding Technology

### Everything from a single source

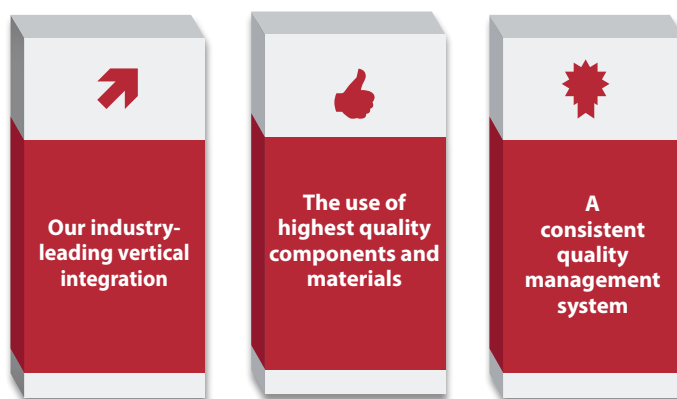
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# Quality – Made in Germany

**For us, quality means striving for perfection.**

Our commitment to quality demands that every machine, every welding torch and everything carrying the EWM logo is of the highest quality and service life.

To achieve this  
our quality policy  
is based on three pillars:



## **Great vertical range of production**

Highly qualified engineers develop our technology and processes in our technology centre in Mündersbach, Germany. Every decisive component in our machines originates from our own development and production. This means we not only have complete control of our production process, but also the certainty that all components were developed in line with our sustainability initiative BlueEvolution.

## **Highest quality components and materials**

For our products we universally use robust housings, powerful cooling systems and generously dimensioned components which are never taken to their performance limits – this results in long-lasting machines with large power reserves.

## **Quality management system**

To ensure quality we employ our quality management system. With state-of-the-art testing technology, 100% quality control and well trained personnel aware of the responsibility to our customers. We are certified to EN ISO 9001.

**Because we are so sure of our quality, we offer the following warranty:**

3 years on welding machines, 5 years on transformers and rectifiers ...  
without limitations on operating hours.

**In 3 shifts, 24 hours a day, 7 days a week!**



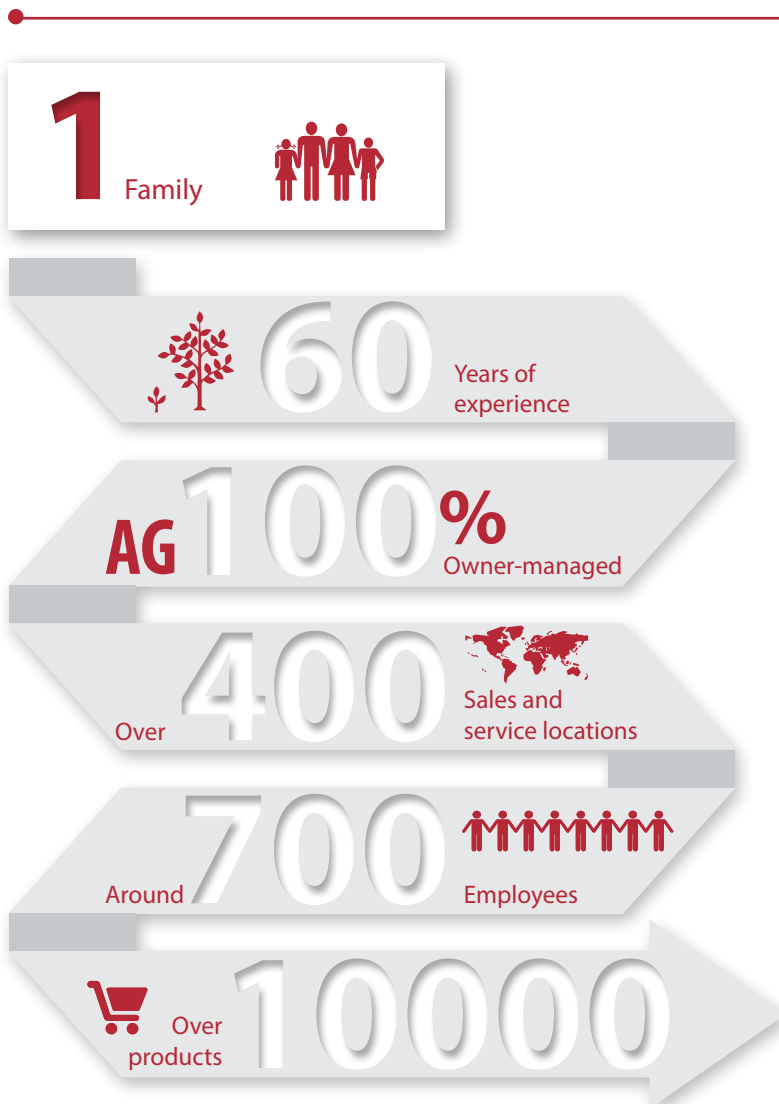


# EWM Welding Technology – Everything from a single source

## As a full-service provider, we accept responsibility for the entire welding process.


We are happy to be there for you, even before you start welding. We assist you in the development and optimisation of welding processes and, together with you, perform test welds on samples in order to identify the most economical and efficient solution for your requirements.

We offer you perfectly coordinated welding consumables for the innovative EWM welding processes as well as welding accessories for minimal wear and optimal use of resources. This not only helps the environment and saves resources, but also reduces post weld work and thus lowers production costs.



With EWM you have a  
partner for your entire  
welding technology needs.

Just contact us!  
Our **complete system range**  
ranges from welding machines  
and welding torches to  
welding consumables and  
welding accessories for manual  
and automated applications.  
It also includes innovations and  
technology consulting “ewm  
maXsolution” as well as solu-  
tions for Industry 4.0 and  
comprehensive service.

1 Partner for  
all your welding  
technology needs 

# All innovative EWM welding processes included at no extra cost.

Today, flexibility is a given in a market of quickly changing demands and individualised solutions. The different welding tasks demand different characteristics. To ensure optimal support for them at all times, all innovative welding processes are included in the machines at no extra cost.

All innovative EWM welding processes included at no extra cost.

This means you not only have **full flexibility** right from the outset but also **rapid availability without time losses or additional costs.**

**all in**



## MIG/MAG

**all in**

- forceArc / forceArc puls
- wired Arc / wiredArc puls
- rootArc / rootArc puls
- coldArc / coldArc puls
- Positionweld
- pipeSolution
- TIG-Liftarc
- MMA



## TIG

- activArc
- spotArc
- forceTig
- tigSpeed



## MMA



## Plasma



# BlueEvolution – the sustainability initiative from EWM

## As a company and as people, we take responsibility:

for our decisions, for our products and services – for our customers, our environment and society. As a leading technology company, we regard it as our obligation to take a sustainable approach to our own operations while also helping our clients to protect the environment. This sentiment is consistently implemented in the development, design and production of our products.

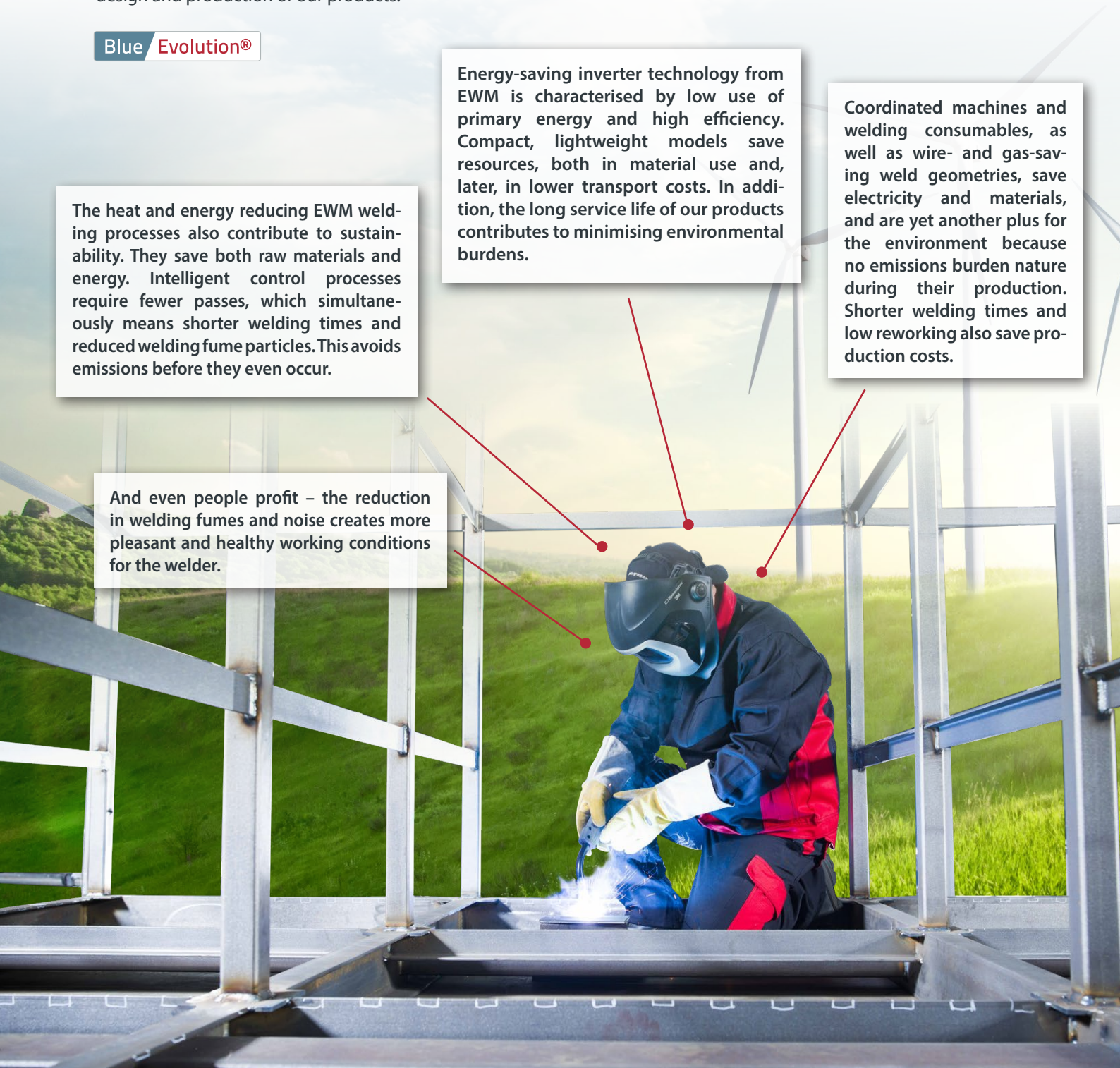
### Blue Evolution<sup>®</sup>

The heat and energy reducing EWM welding processes also contribute to sustainability. They save both raw materials and energy. Intelligent control processes require fewer passes, which simultaneously means shorter welding times and reduced welding fume particles. This avoids emissions before they even occur.

Energy-saving inverter technology from EWM is characterised by low use of primary energy and high efficiency. Compact, lightweight models save resources, both in material use and, later, in lower transport costs. In addition, the long service life of our products contributes to minimising environmental burdens.

Coordinated machines and welding consumables, as well as wire- and gas-saving weld geometries, save electricity and materials, and are yet another plus for the environment because no emissions burden nature during their production. Shorter welding times and low reworking also save production costs.

And even people profit – the reduction in welding fumes and noise creates more pleasant and healthy working conditions for the welder.





## EWM system

### A system that connects everything

Thanks to the in-house development of our products, the extensive vertical integration of products from welding machines and torches to accessory components and the effective EWM quality assurance system – you can safely rely on us.



## Your benefits



### Sustainable corporate success

With EWM you work quickly, safely and efficiently – your productivity is noticeably increased.



### Everything from one source

We assume the technological responsibility for your entire welding process.



### You can rely on our service

You profit from training, servicing, systems set-up and much more.



### EWM maXsolution

Through our new innovation and technology consultancy service, we will assist you in optimising your work stations and processes.



### Quality guaranteed

3-year warranty\* on all welding machines and 5-year warranty\* on all transformers and rectifiers – even on a 3-shift system, 24 hours a day, 7 days a week.



### All in – All characteristics and Welding processes are included in the machine price

We offer you the ideal solution for every welding task, as all machine-specific welding procedures for steel, CrNi and aluminium (EN 1090-certified) are always included in the price of the machine.

# Optimum quality

Thanks to completely proprietary development and optimum vertical integration of all components in the EWM system

## Inverter welding machines



- Lightweight, compact and resource-conserving thanks to efficient inverter technology
- Own power semiconductors
- Excellent welding characteristics
- Optimum duty cycles thanks to generous power unit design
- Large power reserves which enable you to use intermediate hose packages up to 70 m long
- Energy-saving standby function included
- Durable, maintenance- and service-friendly

## Wire feed unit



- Reliable wire feeding thanks to four driven wire feed rolls
- Minimised set-up times thanks to non-detachable parts, automatic inching and colour-coded wire feed rolls which can be replaced without tools
- Longer service life and less wear thanks to double ball-bearing drive axles
- Interior lighting

## PM and MT torches



- Less finishing work, spatter, emissions and wear thanks to perfect cooling and optimum coordination
- Lower gas consumption thanks to separate gas duct and laminar shielding gas coverage
- Optimal ergonomic design for easy handling
- Less abrasion and a longer service life thanks to transition-free wire guide (from Euro torch connector to contact tip)
- Repairable and, consequently, environmentally friendly





More information at  
[www.ewm-group.com](http://www.ewm-group.com)

### Contact tips M7/M9

- Economical thanks to long service life (up to 5 times longer than standard machines)
- Optimum heat and power transfer thanks to the 30% larger material cross-section compared to standard M6/M8 contact tips, longer contacting surface and conical fit
- Less spatter thanks to better heat conduction
- Screwed gas nozzle provides secure hold

### Innovative welding processes

- Save material, energy and labour costs, e.g. by using new weld geometries and fewer passes
- Less preparatory and finishing work
- Energy-saving thanks to inverter technology combined with reduced-energy joining processes
- Better for the environment and working conditions thanks to fewer welding fumes

### Intermediate hose package

- Extremely easy fit with no tools or intervention in the machine
- Optimum welding characteristics even under high loads due to large cross-sections
- Fabric-sheathed, diffusion-free shielding gas hoses (EN 559)
- Industry-standard welding current plug-in connectors
- Torsion-resistant control cable assembly

### Welding consumables

- Ideal for every welding task
- Manufactured according to strict EWM quality specifications
- Maximum process reliability thanks to being tailored to EWM welding processes and systems
- All services from a single source



# Allow us to introduce: Titan XQ Welding 4.0 – the future of welding.

**Conquer the new dimension – welcome to the world of welding 4.0 by EWM.**

The future of professional welding is networked, digital and paperless. These are the challenges of “Industry 4.0” and every company must face these sooner or later. The EWM group delivers welding companies the ideal solution with the new Titan XQ multiprocess MIG/MAG welding machine and the Welding 4.0 welding management system ewm Xnet first-class future-proofability, for even more efficient, qualitative-certifiable welding.

**All innovative welding processes and characteristics are included in the purchase price of the welding machine.**

- Welding consistently at the highest levels of quality and efficiency, as all innovative welding processes from EWM are available as standard

**all in**

**Display WPS and welding data via mobile device – one view tells you everything**

- Easy parameter control directly in the welder's workplace thanks to availability of all current welding data

**Welding 4.0 – ewm Xnet  
welding management system**



# Titan XQ



## Create paperless WPS – assign WPS to component parts and welders

- Efficiently create WPS and conveniently assign from the office according to quality assurance

ewm		Welding procedure specification (WPS)		WPS No.	Rev.	Page 1.1
				200		
Manufacturer Etwad CTR WPS No. Teller or test authority		WPS No. 200 Rev. 1.1 Page 1.1				
Material 1018M AG Sheet 1 201 244-1-20008-001-12 -metal		Joint Weld seam details Type of preparation and cleaning Working on the root pass Parent metal specification 1 Parent metal specification 2 Material thickness 1 [mm] Material thickness 2 [mm] Outer diameter [mm] Welding position Component geometry		Butt joint One-sided without backing bar None 1305 µm 1305 µm 30 30 2 PA Plates		
<b>Weld preparation</b> 		<b>Welding sequence</b> 				

## Component management for efficient manufacturing – step-by-step to perfection

- Minimised risk of welding defects thanks to convenient and component-based allocation of WPS for each individual run/seam



## PM welding torch with graphic display – information directly on the workpiece

- Conveniently save time reading and acknowledging the current welding task according to the welding sequence plan via welding torch on the workpiece





# Welding 4.0

## ewm Xnet welding management system

Intelligent and productivity-boosting networking of man and machine for an automatic flow of data in the production chain: Industry 4.0 is now becoming established in welding production thanks to the new and innovative ewm Xnet Welding 4.0 welding management system. Future concepts such as the smart factory and digital transformation become reality with minimal effort.

The advantages are obvious: the improved networking of products and people increases efficiency and quality, reduces costs and saves resources at the same time. Intelligent monitoring and transparent processes, from planning and production through to the final costing of weld seams, allow you to maintain an overview at all times. ewm Xnet provides welding companies of all sizes and types with the benefits of Industry 4.0. Bring the future into your company now – Get in touch with us.

### Improved productivity, lower costs and ensured quality – Three advantages for you.

ewm Xnet produces measurable benefits throughout the entire value chain of your welding company. The future-oriented welding management system organises production, planning, quality management, welding coordination and management and in this way helps to improve economy, quality and documentation considerably. ewm Xnet future-proofs metalworking companies.

### ewm Xnet The modules and components

- / Starter set – record and manage welding data and determine consumption values in real time
- / WPQ-X Manager – create, manage and assign welding procedure specifications to welders
- / Component management – manage components, create welding sequence plans, assign WPS
- / Xbutton – access authorisation and WPS assignment for welders via the robust hardware key



# A step towards more efficient welding technology that saves resources

## Increased productivity – complete more work in the same time

- Longer arc times per shift improve efficiency
- Paperless transfer of all relevant data and WPS directly in the workplace reduce non-productive time
- Preset welding parameters reduce the number of error corrections
- Fewer unnecessary downtimes thanks to prompt, consumption oriented maintenance notes, for e.g. consumables

## Cost reduction – increased profits with the same turnover

- Consumption values for power, gas and welding consumables are recorded to recognise potential savings
- Prompt maintenance instructions instead of early warnings minimises consumption of wear parts
- Transparent processes for constructive controlling with the option of precise final costing

## Quality assurance and improvement Improved quality is the greatest asset

- Documentation of welding parameters and welders of every bead for long-term records of weld quality
- WPS linked to component, on-time monitoring of parameters directly on the welding machine and clear assignment of required welder qualifications all reduce errors
- Mandatory specifications from components management and WPS manager ensure the correct parameters are always set
- Xbutton ensures expert welding and supports welding coordinators by identifying welders' qualifications

## MIG/MAG inverter pulse welding machines

### Titan XQ puls

Titan XQ 350 puls D

Titan XQ 400 puls D

Titan XQ 500 puls D

Titan XQ 600 puls D

- forceArc®/forceArc puls®
- wiredArc®/wiredArc puls
- rootArc®/rootArc puls®
- coldArc®/coldArc puls®
- Positionweld
- Pulse welding
- TIG
- MMA



Duty Cycle (40°)

-

-

-

600 A/40%

-

400 A/80%

500 A/80%

550 A/60%

350 A/100%

370 A/100%

470 A/100%

500 A/80%

470 A/100%

### Phoenix puls

Phoenix 401 puls C

Phoenix 501 puls C

Phoenix 351 puls D

Phoenix 401 puls D

- forceArc®/forceArc puls®
- rootArc®/rootArc puls®
- Pulse welding
- TIG
- MMA



Duty Cycle (40°)

-

-

-

-

-

500 A/60%

-

-

400 A/100%

430 A/100%

350 A/100%

400 A/100%

### Phoenix puls

Phoenix 355 puls C

Phoenix 355 puls D

Phoenix 405 puls D

Phoenix 505 puls D

- forceArc®/forceArc puls®
- rootArc®/rootArc puls®
- Pulse welding
- TIG
- MMA



Duty Cycle (40°)

350 A/40%

-

-

-

300 A/60%

350 A/60%

-

500 A/60%

270 A/100%

300 A/100%

400 A/100%

430 A/100%





More information is available in  
our **Machine Catalogue** and  
at [www.ewm-group.com](http://www.ewm-group.com)

## 3 in 1 MIG/MAG, TIG, MMA welding

### alpha Q puls

alpha Q 330 puls C

alpha Q 351 puls D

alpha Q 551 puls D

alpha Q 551 puls D

alpha Q 551 puls 2DV

- forceArc®/forceArc puls®
- rootArc®/rootArc puls®
- coldArc®/coldArc puls®
- pipeSolution
- Pulse welding
- TIG
- MMA



Duty Cycle (40°)

330 A/40%

-

-

-

-

270 A/60%

-

550 A/60%

550 A/60%

550 A/60%

210 A/100%

350 A/100%

420 A/100%

420 A/100%

420 A/100%

Phoenix 451 puls

Phoenix 551 puls

Phoenix 551 puls D

Phoenix 551 puls 2DV



### Picomig puls

Picomig 180 puls

Picomig 185 puls

Picomig 355 puls

- forceArc®/forceArc puls® <sup>1)</sup>
- rootArc®/rootArc puls® <sup>1)</sup>
- Pulse welding
- TIG
- MMA



Duty Cycle (40°)

180 A/25%

180 A/25%

350 A/40%

120 A/60%

120 A/60%

300 A/60%

100 A/100%

100 A/100%

270 A/100%

<sup>1)</sup> Picomig 355 puls only

## MIG/MAG inverter welding machines




### Taurus\*

	Taurus 351 C	Taurus 401 C	Taurus 501 C
<ul style="list-style-type: none"> <li>forceArc®</li> <li>rootArc®</li> <li>TIG</li> <li>MMA</li> </ul>			
Duty Cycle (40°)	-	-	-
	-	-	500 A/60%
	350 A/100%	400 A/100%	430 A/100%

### Taurus\*

	Taurus 355 C	Taurus 355 D	Taurus 405 D	Taurus 505 D
<ul style="list-style-type: none"> <li>forceArc®</li> <li>rootArc®</li> <li>TIG</li> <li>MMA</li> </ul>				
Duty Cycle (40°)	350 A/40%	-	-	-
	300 A/60%	350 A/60%	-	500 A/60%
	270 A/100%	300 A/100%	400 A/100%	430 A/100%

### Picomig

	Picomig 180 Synergic	Picomig 185 Synergic	Picomig 355 Synergic
<ul style="list-style-type: none"> <li>forceArc® <sup>1)</sup></li> <li>rootArc® <sup>1)</sup></li> <li>TIG</li> <li>MMA</li> </ul>			
Duty Cycle (40°)	180 A/25%	180 A/25%	350 A/40%
	120 A/60%	120 A/60%	300 A/60%
	100 A/100%	100 A/100%	270 A/100%

<sup>1)</sup> Picomig 355 Synergic only

**3 in 1\*** MIG/MAG, TIG, MMA welding

Taurus 351 D



-

-

350 A/100%

Taurus 401 D



-

-

400 A/100%

Taurus 451 D



-

450 A/80%

420 A/100%

Taurus 551 D



-

550 A/60%

420 A/100%

Taurus 400 Basic D



400 A/30%

280 A/60%

230 A/100%

Taurus 505 Basic Duo Gouging set up  
to 1000 A



-

1000 A/60%

860 A/100%

! \* In the Taurus series, TIG welding and the innovative forceArc<sup>®</sup> and rootArc<sup>®</sup> welding processes are only available in conjunction with the Synergic S control system.





More information is available in  
our **Machine Catalogue** and  
at [www.ewm-group.com](http://www.ewm-group.com)



## MIG/MAG welding machines, step switch controlled

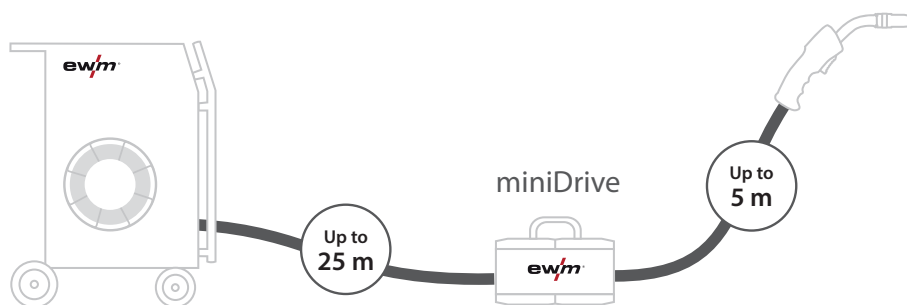
### Mira

	Mira 151	Mira 221	Mira 251	Mira 301
				
Duty Cycle (40°)	150 A/15%	220 A/15%	250 A/20%	300 A/20%
	-	-	-	-
	55 A/100%	85 A/100%	125 A/100%	150 A/100%

### Wega

	Wega 401 C	Wega 401 D	Wega 501 D	Wega 601 D
				
Duty Cycle (40°)	-	-	-	600 A/45%
	400 A/60%	400 A/60%	500 A/60%	-
	300 A/100%	300 A/100%	400 A/100%	450 A/100%

## Intermediate drive – miniDrive\*



System example: Compact welding machine + miniDrive

\* Compatibility machine-dependent; you can find more detailed information in the Machine Catalogue

## Saturn

Saturn 301 C

Saturn 351 C

Saturn 351 D



Duty Cycle (40°)

300 A/40%

350 A/45%

350 A/45%

190 A/60%

250 A/60%

250 A/60%

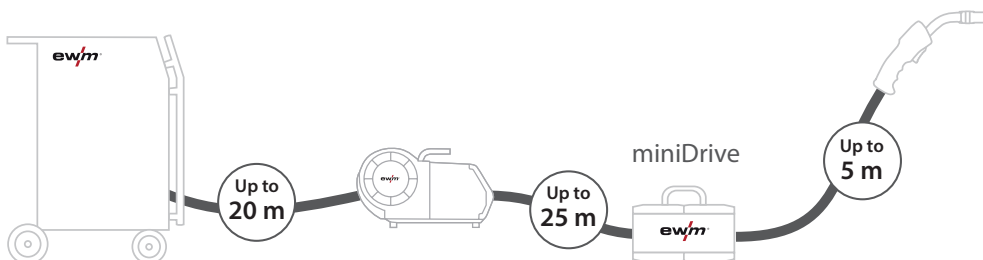
160 A/100%

220 A/100%

220 A/100%



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System example: Decompact welding machine + wire feeder + miniDrive




When welding aluminium the miniDrive may only have a maximum length of 15 m!

## TIG DC inverter welding machines



### Tetrix

	Tetrix 351 <sup>a)</sup>	Tetrix 401 <sup>a)</sup>	Tetrix 451 <sup>a)</sup>	Tetrix 551 <sup>a)</sup>
<ul style="list-style-type: none"> <li>TIG DC</li> <li>activArc®</li> <li>spotArc®</li> <li>MMA</li> </ul>				
Duty Cycle (40°)	-	-	-	-
	-	-	450 A/80%	550 A/60%
	350 A/100%	400 A/100%	420 A/100%	420 A/100%

### Tetrix

	Tetrix 200 puls <sup>b)</sup>	Tetrix 200 MV puls <sup>b)</sup>	Tetrix 230 puls <sup>c)</sup>
<ul style="list-style-type: none"> <li>TIG DC</li> <li>activArc®</li> <li>spotArc®</li> <li>MMA</li> </ul>			
Duty Cycle (40°)	200 A/25%	200 A/25 % <sup>1)</sup>	150 A/35% <sup>2)</sup>
	150 A/60%	150 A/60% <sup>1)</sup>	120 A/60% <sup>2)</sup>
	140 A/100%	140 A/100 % <sup>1)</sup>	100 A/100% <sup>2)</sup>
			230 A/40%
			200 A/60%
			170 A/100%

### Picotig

	Picotig 200 puls	Picotig MV 200 puls
<ul style="list-style-type: none"> <li>TIG DC</li> <li>MMA</li> </ul>		
Duty Cycle (40°)	200 A/25%	200 A/25 % <sup>1)</sup>
	150 A/60%	150 A/60% <sup>1)</sup>
	140 A/100%	140 A/100 % <sup>1)</sup>
		150 A/35% <sup>2)</sup>
		120 A/60% <sup>2)</sup>
		100 A/100% <sup>2)</sup>



## 2 in 1 TIG and MMA welding

Tetrix 551 AW <sup>d)</sup>  
Cold wire/hot wire



550 A/60%

420 A/100%

### Available Tetrix controls

- a) Smart 2.0, Comfort 2.0, Synergic
- b) Comfort
- c) Smart 2.0, Comfort 2.0
- d) Synergic

Tetrix 300 puls <sup>c)</sup>



300 A/35%

260 A/60%

210 A/100%

Tetrix 300 <sup>b)</sup>



300 A/60%

250 A/100%



More information is available in  
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at [www.ewm-group.com](http://www.ewm-group.com)

## TIG AC/DC inverter welding machines

### Tetrix

Tetrix 351 AC/DC <sup>a)</sup>

Tetrix 451 AC/DC <sup>a)</sup>

Tetrix 551 AC/DC <sup>a)</sup>

- TIG DC/TIG AC
- activArc®
- spotArc®
- MMA



Duty Cycle (40°)

350 A/60%

450 A/80%

550 A/60%

300 A/100%

420 A/100%

420 A/100%

### Tetrix

Tetrix 230 AC/DC puls <sup>b)</sup>

Tetrix 300 AC/DC puls <sup>b)</sup>

- TIG DC/TIG AC
- activArc®
- spotArc®
- MMA



Duty Cycle (40°)

230 A/40%

300 A/35%

200 A/60%

260 A/60%

170 A/100%

210 A/100%

### Picotig

Picotig 200 AC/DC puls

- TIG DC/TIG AC
- MMA



Duty Cycle (40°)

200 A/35%

150 A/60%

140 A/100%

Tetrix 551 AC/DC AW <sup>c)</sup>  
cold wire/hot wire



550 A/60%

420 A/100%

## 2 in 1 TIG and MMA welding

### Available Tetrix controls

- a) Smart 2.0, Comfort 2.0, Synergic
- b) Smart 2.0, Comfort 2.0
- c) Synergic



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at [www.ewm-group.com](http://www.ewm-group.com)

## tigSpeed\* hot/cold wire system



### **tigSpeed oscillation drive 45 hotwire**

Wire feeder for hot wire  
With superimposed forward/backward wire  
motion

### **tigSpeed oscillation drive 45 coldwire**

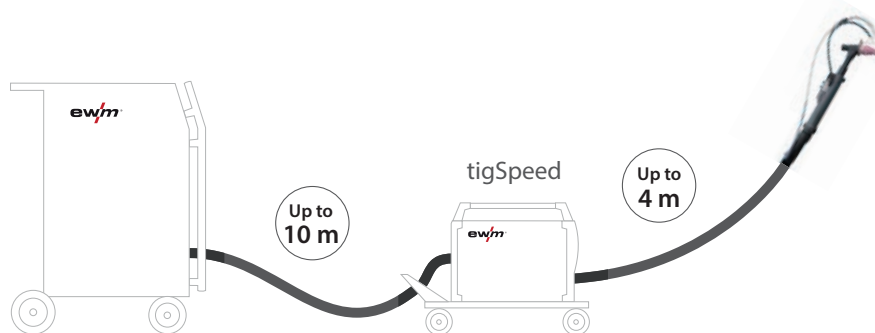
Wire feeder for cold wire  
With superimposed forward/backward wire  
motion

### **tigSpeed continuous drive 45 hotwire**

Wire feeder for hot wire

### **tigSpeed continuous drive 45 coldwire**

Wire feeder for cold wire



System example: TIG welding machine + tigSpeed + welding torch

\* Can be used with any water-cooled TIG welding machine



## MMA and plasma inverter welding machines

### Pico

Pico 162 MV

Pico 160

Pico 160 cel puls

- MMA
- TIG DC



Duty Cycle (40°)	150 A/35% <sup>1)</sup>	110 A/35% <sup>2)</sup>	150 A/35%	150 A/30%
	120 A/60% <sup>1)</sup>	90 A/60 % <sup>2)</sup>	120 A/60%	120 A/60%
	100 A/100% <sup>1)</sup>	80 A/100 % <sup>2)</sup>	100 A/100%	110 A/100%

### Pico

Pico 350 cel puls

Pico 350 cel puls pws

Pico 350 cel puls pws dgs

- MMA
- TIG DC



Duty Cycle (40°)	350 A/35%	350 A/35%	350 A/35%
	280 A/60%	280 A/60%	280 A/60%
	230 A/100%	230 A/100%	230 A/100%

### microplasma

microplasma 20

microplasma 50

microplasma 120

- Plasma



Duty Cycle (40°)	-	-	120 A/35%
	-	-	-
	20 A/100%	50 A/100%	70 A/100%

Pico 180 puls



180 A/25%  
130 A/60%  
120 A/100%

Pico 220 cel puls



220 A/30%  
160 A/60%  
140 A/100%

Pico 300 cel



300 A/25%  
220 A/60%  
170 A/100%

Pico 300 cel pws



300 A/25%  
220 A/60%  
170 A/100%

Pico 350 cel puls  
Pico 350 cel puls pws

+ Pico drive 4L



350 A/35%  
280 A/60%  
230 A/100%

## Degauss

Degauss 600

- Degaussing of pipes and sheet metal



Degaussing current

-

-

600 A

## Tetrix plasma

Tetrix 150 Plasma

- Plasma
- TIG DC
- activArc®
- spotArc®
- MMA



Duty Cycle (40°)

-

-

150 A/100%



More information is available in our **Machine Catalogue** and at [www.ewm-group.com](http://www.ewm-group.com)



## EWM welding torches

Gas- or water-cooled torches are part of our integrated system. Together with other EWM components and innovative EWM welding processes, they ensure that the full performance capability of the power sources is channelled into the welding process.





## Your benefits



**Economical  
work processes  
thanks to long  
service life**

Minimum overheads for consumables, changeover and finishing work: All wear parts are very long-lived thanks to the optimal cooling.



**Work more efficiently  
thanks to innovative  
design**

The ideal ergonomic design cuts costs and improves quality since easier handling reduces errors and finishing work.



**Reduce costs  
and conserve  
resources**

Lower gas consumption thanks to separate gas duct and laminar shielding gas coverage. Extremely wear-resistant thanks to perfect cooling and an optimum match to welding machines. What's more, easy to repair overall.

# Technology which reduces costs while increasing quality

## EWM welding torches

### MIG/MAG

#### Manual welding torches for the perfect result

Innovating to perfection: you will achieve optimum welding results with our welding torches and innovative welding processes of EWM:

- forceArc®/forceArc puls®
- wiredArc/wiredArc puls
- rootArc/rootArc puls
- coldArc/coldArc puls
- Positionweld
- Pulse and standard

#### Manual welding torches, gas-cooled up to 450 A (CO<sub>2</sub>) and water-cooled up to 650 A (CO<sub>2</sub>):

<b>1</b>	<b>PM series</b> Standard torch*	PM221/301/401G, PM301/451/551W
	<b>C Series</b> Replaceable neck*	PM221/301CG, PM301/451CW
	<b>S Series</b> Short neck*	PM451/551WS
	<b>L Series</b> Long neck*	PM451/551WL
<b>2</b>	<b>MT Series</b> Standard torch*	MT221/301/401G, MT301/451/551W
	<b>C Series</b> Replaceable neck*	MT221/301CG, MT301/451CW
	<b>S Series</b> Short neck*	MT451/551WS
	<b>L Series</b> Long neck*	MT451/551WL
<b>3</b>	<b>Push/pull</b> with replaceable neck (PP)*	PPMT221/301CG PPMT301/451CW
<b>4</b>	<b>F Series</b> Fume extraction torch	MT221G F, MT301/451W F
<b>5</b>	<b>UM Series</b> Standard torch	UM 15 G/UM24 G/25 G/UM 36 G UM 240 W/UM 401 W/UM 501 W

G = gas-cooled W = water-cooled

\* Also available as function torch with control system





More information is available in our  
**Welding Torch Catalogue** and  
at [www.ewm-group.com](http://www.ewm-group.com)

## MIG/MAG

Automated welding torches  
for automated processes

For automated production: our automated welding torches can be adjusted to each application on an individual basis. Combined with the EWM welding processes, you will not only be flexible in your work but also efficient.

**Automated welding torch, gas-cooled up to 330 A (CO<sub>2</sub>)  
and water-cooled up to 650 A (CO<sub>2</sub>):**

6	AMT automated welding torches with different torch neck angles 0–45°	AMT301G AMT451/551W
7	Robot welding torches	
8	Hollow shaft robot welding torch	

**Robot pull welding torch, gas-cooled 420 A (CO<sub>2</sub>)**

9	frontDrive – Robot pull welding torch	
---	---------------------------------------	--

## TIG; Plasma

Ideal solutions  
for a variety of uses

Always on the right side: from TIG standard, cold wire and hot wire welding with manual or automated systems to filigree plasma welding with EWM TIG and plasma torches.

**Manual welding torches, gas-cooled up to 300 A (DC-)  
and water-cooled up to 450 A (AC-):**

10	TIG*
11	TIG little*
12	Plasma
13	spotArc welding torch; spot and tack welding
14	tigSpeed welding torch; hot wire/cold wire for cold and hot wire welding
15	comfyTig 18-1 for cold and hot wire welding

\* Also available as function torch with control system

**Automated welding torch, gas- and water-cooled:**

16	TIG/plasma welding torch
----	--------------------------



# EWM Welding Consumables

Achieving optimum welding results requires more than just a welding machine and torch. We at EWM view ourselves as a system supplier and therefore offer you a host of welding consumables for every welding task.





## Your benefits



### All services from a single source

You have a single contact for all system components and the entire process chain, plus consulting and service.



### Fastest availability and delivery times

Our large central warehouse with permanently high stock levels guarantee fastest availability and delivery times.



### EWM premium quality

We guarantee the best quality; from welding rods and stick electrodes to solid wire and flux cored wire electrodes.



### Maximum process reliability

All our welding consumables are precisely geared to the relevant welding procedures and systems.

# Process-optimised down to the tiniest detail

## EWM welding consumables

### MIG/MAG; SAW

Tested quality  
for limitless possibilities

We supply everything that welders need to do their work: from solid and flux cored wire electrodes through to SAW. Thanks to our extensive quality assurance with regular analyses and sample welds, we guarantee optimum process reliability, from spooling monitoring, covering quality and the amount of lubrication through to unwinding properties, even over long distances, and metallurgical properties.

#### Optimum welding characteristics with EWM welding consumables for all areas of use:

- |                         |                            |
|-------------------------|----------------------------|
| ■ Unalloyed             | ■ Heat-resistant           |
| ■ High tensile          | ■ Duplex                   |
| ■ Low-temperature tough | ■ Nickel-based             |
| ■ Weatherproof          | ■ Aluminium                |
| ■ Creep-resistant       | ■ Copper-based             |
| ■ High-alloy            | ■ CuAl, CuSi, CuZn solders |
|                         | ■ Hardfacing               |





More information is available in our  
**Welding Consumables Handbook** and  
at [www.ewm-group.com](http://www.ewm-group.com)

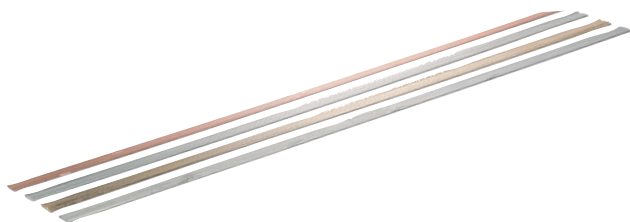
## TIG/oxyacetylene

Reliable solution for thin-walled  
workpieces and root passes

The broad selection of widely different alloys and their ready availability guarantee maximum flexibility for you. Our welding and oxyacetylene welding rods impress with optimum processability and top-quality results during maintenance, repair and joint welding.

### Optimum welding characteristics with EWM welding consumables for TIG applications:

- |                         |                            |
|-------------------------|----------------------------|
| ▪ Unalloyed             | ▪ Nickel-based             |
| ▪ Low-temperature tough | ▪ Aluminium                |
| ▪ Weatherproof          | ▪ Copper                   |
| ▪ Creep-resistant       | ▪ CuAl, CuSi, CuZn solders |
| ▪ High-alloy            | ▪ Cobalt-based             |
| ▪ Heat-resistant        | ▪ Hardfacing               |
| ▪ Duplex                |                            |



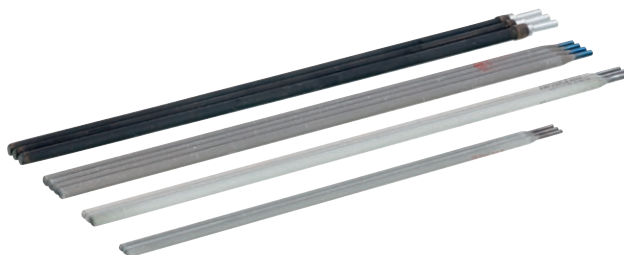
## MMA

Highest flexibility for a  
huge range of applications

EWM stick electrodes are eminently suitable for all areas of use such as piping and container construction, building site welding, workshop welding and application of wear-resistant layers. You are thus well equipped for challenging tasks. We have the ideal product for you in our range, whether you require cellulose electrodes for vertical down welding, rutile or basic electrodes for high impact work-values.

### Optimum welding characteristics with EWM welding consumables for MMA applications:

- |                   |                |
|-------------------|----------------|
| ▪ Low-alloy       | ▪ Duplex       |
| ▪ Creep-resistant | ▪ Nickel-based |
| ▪ High-alloy      | ▪ Hardfacing   |
| ▪ Heat-resistant  |                |





## EWM welding accessories

Laborious procurement process? Not with EWM! In addition to welding machines, our sales partners, branches and the online shop will also supply you with comprehensive accessories – from cutting technology and workshop components to work safety and protection.





## Your benefits



### Expert technical advice

Our consulting service deals with the entire welding process, which obviously also includes welding accessories.



### Reliable partner at your side

We offer you comprehensive services and reliable repair and maintenance assistance.



### High availability, directly from stock

Over 10,000 products are ready for immediate shipping.



### Best delivery terms

A modern warehousing and logistics system and an extensive rental and lease pool ensure rapid shipping.



### Always nearby

Over 400 sales and service partners offer EWM services – worldwide.

# Perfect matches from start to finish

## EWM welding accessories



## Workshop equipment

Comfortable welding  
with ideal equipment

We also look after the little things since they are also part of the welding process: pressure regulators, heaters, welding tables, etc. You will find what you need with us.

### Work more effectively with EWM workshop accessories:

- |                                       |  |
|---------------------------------------|--|
| ■ Pressure regulators and accessories | ■ Cleaning and anti-spatter spray                            |
| ■ Grinding and cutting discs          | ■ Heaters  |
| ■ Weld cleaning components            | ■ Welding, cutting and work benches                          |
| ■ Tools                               | ■ Workshop equipment for weld preparation and finishing work |
| ■ Welding accessories                 |  |





More information is available in our  
**Welding Accessories Catalogue** and  
at [www.ewm-group.com](http://www.ewm-group.com)

## Work safety

On the safe side  
with the right equipment

You will find everything that you need for your protection or that of your employees with us – from special welding clothing and protective equipment through to conventional work wear and everyday clothing.

### Work more safely with EWM work safety accessories:

- Work clothing
- Welder's clothing
- Helmets and accessories
- Safety screens and curtains
- Fume extraction
- Welding safety glasses

**Your health is our mission:**  
**Extraction and breathing protection systems**  
**from EWM**



## Cutting technology

Professional cutting  
with matched solutions

Plasma cutting? Oxyacetylene cutting? All-inclusive solutions with gas cutting machines or robots? We also offer you perfectly integrated, compatible solutions in cutting technology.

### Work more efficiently with EWM cutting accessories:

#### Oxyacetylene cutting

- Higher capacity for greater material thicknesses
- Low overheads
- Fewer downtimes thanks to reliable design

#### Plasma cutting

- Excellent cutting quality
- High productivity
- High cutting speed
- Hardly any reworking
- Optimum flexibility and user convenience
- All-inclusive solutions with gas cutting machines or robots



## EWM Automation

Anyone who has recurring welding tasks will benefit from EWM automation solutions. When automated, joining processes are performed much more quickly while maintaining the same quality standard. That is precisely what we aim for: increasing your productivity and, consequently, your competitiveness.





## Your benefits



### Highly efficient technology

From simple mechanisation solutions and complex robot installations through to retrofitting projects, we integrate highly efficient technology.



### Offer tailored to individual needs

Do you require an affordable starter solution or a high-quality automation solution? At EWM, the possibilities are endless.



### Short pay-off periods

Shorter non-productive periods, and reduced use of raw materials and wear parts guarantee considerable increases in efficiency and thus faster pay-off times.



### Save costs by retrofitting

The innovative, future-proof solution to increase productivity and quality at a significantly lower cost in comparison to newly acquired equipment: we simply replace existing components with state-of-the-art technology, component by component.

# Focus on productivity and quality

EWM Automation





You will find more information in our  
Automation Catalogue and at  
[www.ewm-group.com](http://www.ewm-group.com)

## Welding machines & accessories

Efficient and high-performing:  
innovative welding technology

Use innovative welding technology in an automated solution and gain even greater financial advantages with innovative welding processes on EWM welding machines. Combined with the comprehensive, optimally matched accessories, you will obtain perfect, high-quality results at a low cost for automated welding.

### Best combination options with EWM automation solutions

**Welding machines for MIG/MAG, SAW, TIG and plasma with the innovative welding processes**

- **MIG/MAG:** forceArc/puls, wiredArc/puls, rootArc/puls, coldArc/puls, Positionweld, pulse and standard
- **TIG/Plasma:** activArc, forceTig, tigSpeed

### Comprehensive, matching accessories

- Wire feeders with intermediate hose packages
- Robots and automated welding torches
- Interfaces, quality management software
- Cooling units/transport systems



## Complete systems

Flexible and adaptable:  
well-designed details

We are your expert partners for economical automation solutions. Here, the focus is on customer-specific challenges, including welding technology, process optimisation with innovative arc types and high-quality mechanisation and automation components, as well as carriages.

### Optimum quality parts and components

- Positioners
- Turning rolls
- Columns and booms
- Clamping benches
- Mechanisation
- Circumferential and longitudinal welding machines
- New systems and retrofitting



## EWM Service

### We take care of all your needs

All-inclusive assistance from EWM is in line with our holistic system approach. As a reliable partner, we will advise and assist you in the challenges that you face, examine the whole process chain and find the perfect solution together with you. We are always on hand in your area and ready to help when needed.





## Your benefits



More information at  
[www.ewm-group.com](http://www.ewm-group.com)



**Competitive advantages thanks to comprehensive assistance**

From individual products to complete systems, we assemble the most suitable components from our modular product range.



**Save time with reliable support**

Do you need help with certification processes, have questions about complex welding tasks or need a maintenance contract? EWM and their sales partners are always happy to provide help and advice



**Quality thanks to customised solutions**

We make work easier for you by providing assistance in the form of welding tests, metallurgical analyses, machine update and process optimisation.



**Over 400 sales and service support outlets worldwide**

Our network of dedicated branches and sales and service outlets ensures worldwide availability and service support for EWM products.



**Reach us quickly and conveniently – directly or online**

The online shop gives you permanent access to the world of welding – 24 hours a day.

## ewm maXsolution

Our innovation and technology consultancy service for joining and cutting enables us to assist you in positioning your company for long-term success. We offer you tailor-made solutions, from a detailed analysis of individual processes or a quick check of work routines through to full optimisation of production.





More information at  
[www.ewm-group.com](http://www.ewm-group.com)

### Full advice on all your needs

- Process analysis and optimisation
- Technical consulting on welding tasks
- Financing options: purchase, renting, leasing

### Fully reliable

- Regular maintenance, repair and servicing
- Calibration/validation
- Spare and replacement parts available quickly
- Machine updates

### Fully capable

- Training on products, special materials and processes
- Service training for own company repair department
- Free WPQR package for certification in accordance with EN 1090

### Fully application-oriented

- Technical consulting on welding tasks and weld geometries
- Welding tests, sample welds
- Customised characteristics
- Metallurgical testing with results reporting

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



## Notes

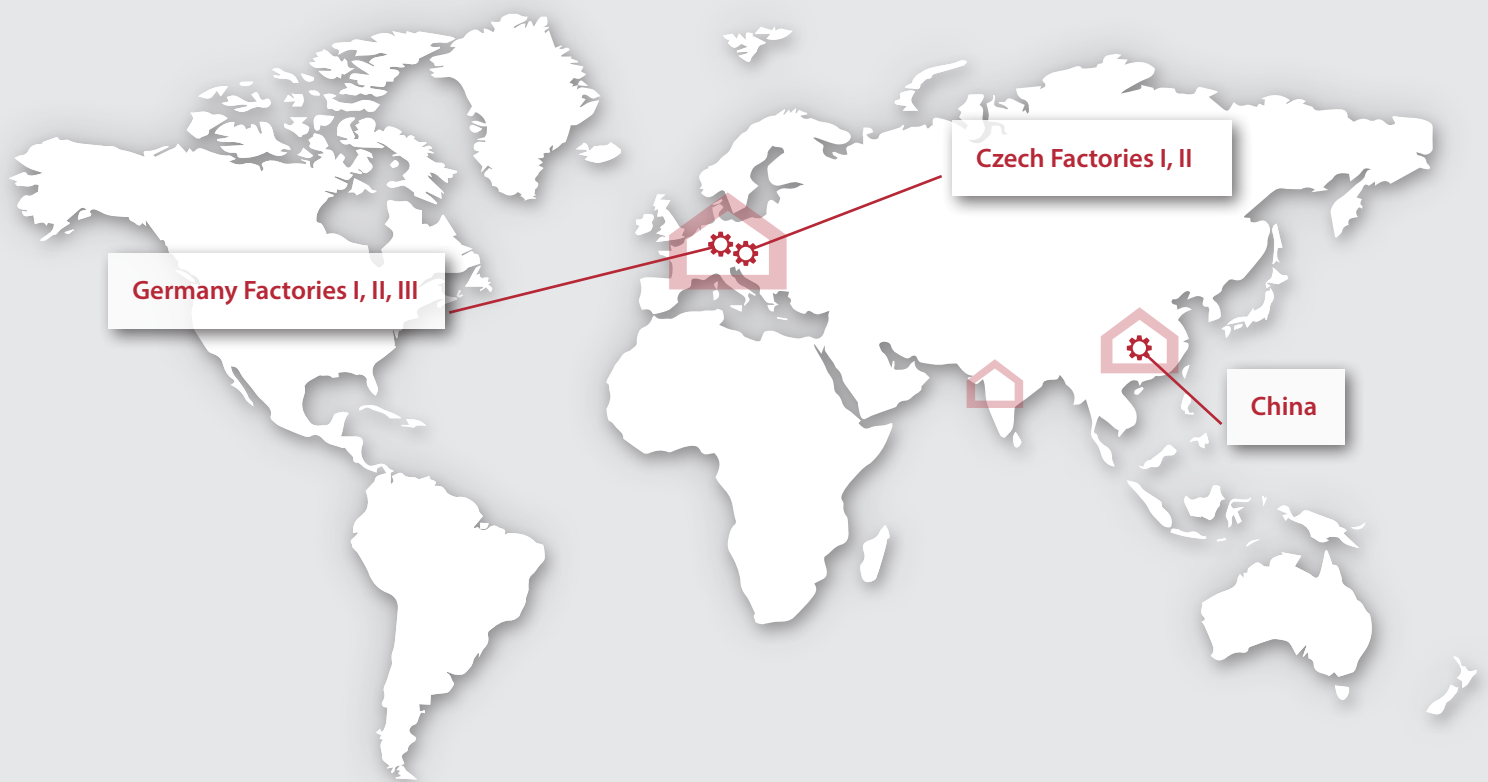
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# EWM Group

## At home around the globe, rooted in the region

Over 400 sales and service support outlets

### Production sites:



### Sales and service branches:

#### Germany

- Göttingen
- Koblenz
- Munich
- Neu-Ulm
- Pulheim
- Rathenow
- Siegen
- St. Augustin
- Tett nang

#### Worldwide

- Austria
- China
- Czech Republic
- Great Britain
- Turkey
- India
- Poland

#### Regional Area Sales Manager

- Spain
- Italy
- France
- Scandinavia

## Headquarters

### EWM AG

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

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www.ewm.cn · info@ewm-group.cn

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Tel.: +420 412 358-551 · Fax: -504  
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Product range, services



Brochure  
Titan XQ puls



Catalogue  
Welding machines and accessories



Catalogue  
Welding torches and accessories



Catalogue  
Welding accessories



Handbook  
Welding consumables



Handbook  
EWM welding dictionary

## EWM AG

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[info@ewm-group.com](mailto:info@ewm-group.com)

Sales / Consultancy / Service



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