# MICORSTEEL

MADE IN GERMANY




# THE NEW SPECIALIST IN STEEL CONSTRUCTION.

**Focused. Robust. Cost-effective.**

LORCH
smart welding

# Greater productivity.
# Less complexity.

## The welding system for steel fabricators who want results.

In steel construction, every weld seam determines deadlines, quality and cost-effectiveness. At the same time, time pressures, skills shortages and costs are on the rise. That is precisely why the **MicorSteel** was developed.

It focuses on what really matters in steel construction: high performance, maximum robustness and ease of use. No unnecessary functions. No complicated menus.

**The result:** your staff work more productively, reduce operating errors and consistently achieve high-quality welding results – day in, day out.




## Because you don’t need an all-round solution, but a specialist.

If you mainly weld steel, you don’t need a complex multi-material platform with countless options.

The **MicorSteel** has been specifically developed for steel construction applications. It delivers exactly the performance required for medium to thick materials – with high deposition rates, a powerful, concentrated spray arc and robust industrial technology.

You invest only in features that genuinely make your day-to-day work more productive.

## Your benefits at a glance

- Get up to speed quickly – a short induction for new staff.
- Easy to use – fewer errors, greater safety.
- Potentially faster welding speeds – get to the finished part quicker.
- Robust industrial technology – reliable in demanding everyday use.
- Attractive investment price – quick return on investment.
- Made in Germany.

Request a free trial of **MicorSteel** via our website now.




# The control panel for steel fabricators.

## Get to the weld seam faster. Get results faster.

**MicorSteel** focuses on the functions required on a daily basis in steel construction. Thanks to optimised synergic lines for steel with a synergy function and a clear operating structure, it quickly guides the user to the correct setting. There is no need for time-consuming parameterisation or convoluted menus. This shortens the training period, reduces incorrect settings and ensures reproducible results.

**Just 3 steps to perfect welding results.**

**1** **SELECT THE MATERIAL, WIRE AND GAS.**

**Find the right synergic line in just a few steps.**
Whether solid wire or flux-cored wire, $CO_2$ or mixed gas: with just a few inputs, you can go straight to the right synergic line for your application. **MicorSteel** focuses on the materials and gases used in steel construction on a daily basis. This simplifies the selection process, reduces operating errors and lays the foundation for reproducible welding results.

**2** **SELECT THE PROCESS AND OPERATING POINT.**

**Exactly the support that the application requires.**
Depending on the task, you can choose between Manual, Synergic or SpeedArc. For standard applications, the Synergic lines – complete with sheet thickness recommendations – quickly guide you to the correct setting. If you wish to intervene manually, you retain full control in manual mode. SpeedArc also offers a particularly powerful process for high-productivity structural steelwork applications.

**3** **WELDING AND FITTING.**

**Simply weld. Optimise as required.**
Whether 2-stroke, 4-stroke or custom 4-stroke: **MicorSteel** offers precisely the adjustment options that make a real difference in steel construction. This allows the system to be adapted to the parts, the application and the user's personal working style, without burdening the user with unnecessary complexity. The result is stable processes, reproducible results and more time for productive welding work.



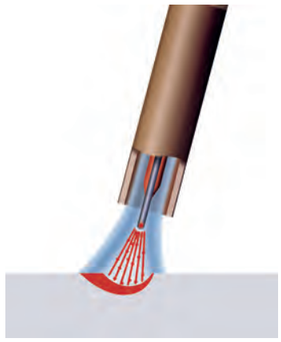
# The perfect arc.

## Perfectly tailored to the task and the welder.

You know this from experience. Every welding system has its own characteristics. One may have a slightly softer arc, whilst another has a slightly harder one. Yet every welder has their own preferences and ideas about how they would ideally like the arc to be – softer and longer, shorter and harder, or right in the middle. This calls for individuality, which a single system cannot readily provide.

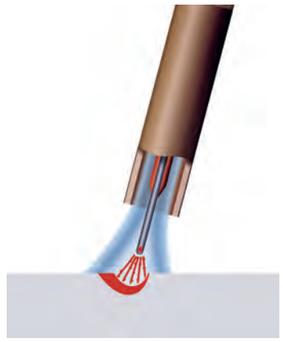
It's different with the **MicorSteel:** here, you can adjust the dynamics of the arc entirely according to the requirements of the task at hand and the welding position, and quickly and easily find the best individual arc setting. The MicorSteel's intelligent arc control technology takes care of the rest. All key parameters are automatically controlled in the background, ensuring a perfect weld seam.

**ARC SETTING:**
**SOFT.**



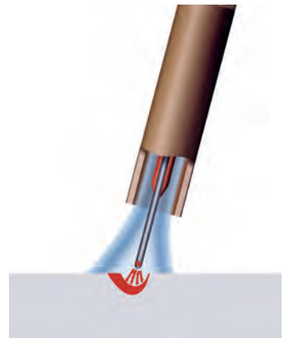



**ARC SETTING:**
**MEDIUM.**






**ARC SETTING:**
**HARD.**





# Optimised for steel construction.

Designed to boost productivity.

**SYNERGIC LINE.**

**Quick to set up. Smooth welding.**

The synergic lines help you quickly find the right setting and ensure a stable arc right from the very first part. This reduces the effort involved in parameterisation and builds confidence in the process, allowing you to focus on the weld seam rather than the settings.

Those who prefer a more traditional approach can switch to manual mode at any time and set the wire feed rate and voltage directly.

The result is a welding (process) you can rely on. The correct setting is found quickly, the arc remains stable and reproducible results are easier to achieve. This saves time during set-up, reduces the need for readjustments and helps maintain consistent quality in day-to-day use.

**QUICKJOBS.**

**When tried-and-tested settings don't need to be committed to memory.**

The five QuickJobs allow you to save frequently used welding parameters and recall them at any time.

This saves time on repetitive tasks, reduces the risk of incorrect settings and ensures reproducible results. Particularly when dealing with recurring parts or a changing workforce, tried-and-tested settings ensure a quick start and reproducible results.




**SPEEDARC AND END CRATER FILLING.**

**Weld efficiently. Finish neatly.**

SpeedArc ensures high penetration, high deposition rate and enables reduced weldprep angles. This reduces weld volume, material consumption and welding time. The integrated end-crater filling promotes a clean weld finish and helps to prevent crater-related defects.

The result: less weld preparation, less rework and more productive welding time.

**DYNAMIC CONTROL.**

**When standard parameters are no longer sufficient.**

Depending on the part and the weld joint configuration, a more stable or more direct arc behaviour can offer advantages. Dynamic arc control allows the arc characteristics to be specifically tailored to the application.

This provides additional control over the weld pool and weld formation, and helps to achieve reproducible results even under changing conditions.

**INDIVIDUAL 4-STROKE.**

**Control heat input precisely.**

Particularly in the case of gusset plates, material build-up or varying gap dimensions, the targeted adjustment of heat input helps to manage critical areas in a controlled manner. With Individual-4-Takt, the heat input can be adapted to these conditions during welding.

This enables complex joints to be welded in a controlled manner and manufacturing tolerances to be compensated for more reliably. This provides additional process reliability precisely where standard parameters reach their limits and helps to reduce rework and scrap.

## The benefits for you

- Get up to speed quickly, even with a changing workforce.
- Tried-and-tested settings available at all times.
- Consistent quality instead of having to search for parameters again.
- Greater safety for complex steel structural connections.
- Less rework, more value creation.

# Get the most out of your MicorSteel.

## Better performance starts with the torch.

The ergonomic design reduces strain on the welder and improves handling during day-to-day use. At the same time, optimal gas flow and high-quality components ensure clean weld seams, less rework and reduced wear.

The Powermaster function allows key parameters to be adjusted directly on the torch – without having to leave the workstation.

This saves time and keeps the welding (process) flowing smoothly.




## Lorch LMS performance torch with Powermaster function.

- Up-down function for remote power source control.
- Digital display of weld performance, material thickness, wire feed speed and arc length correction.
- Can also be used without a direct view of the welding system's user interface.
- Suitable for switching between QuickJobs.
- The design of the buttons prevents them from being pressed accidentally.



# SpeedArc included.

## For greater focus and deeper penetration.

To ensure maximum cost-effectiveness, the **MicorSteel** is fitted as standard with the tried-and-tested Lorch SpeedArc process.

The highly focused and powerful arc ensures deeper penetration and a higher power density than conventional MIG-MAG processes.

**The benefits of SpeedArc:**

- Very deep penetration mark.
- Higher welding speed.
- Improved directional stability.
- Optimised for the spray arc.
- Less seam preparation.
- Full control across the entire performance range.




## Save on materials. Save time.

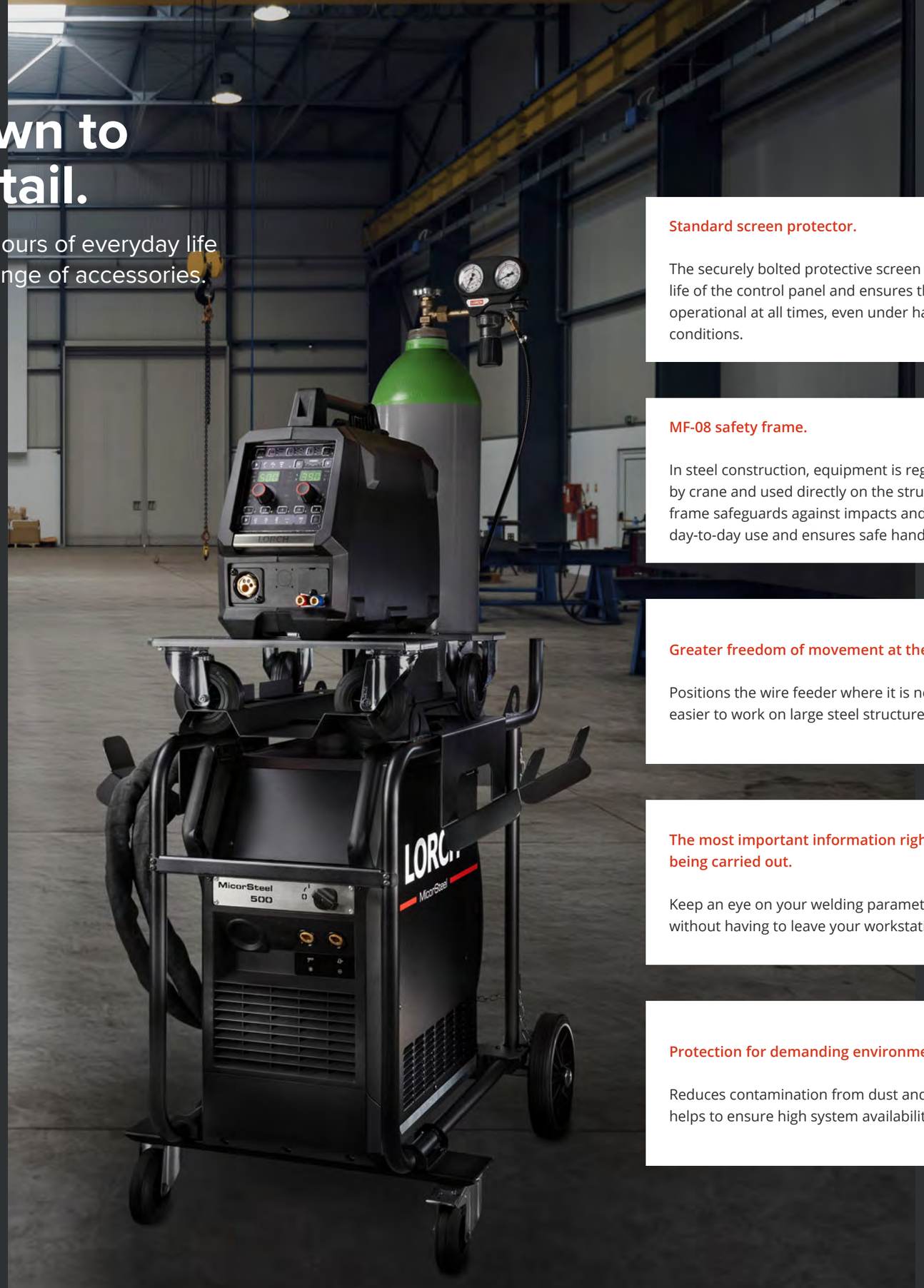
With SpeedArc, even smaller weldprep angles are sufficient to produce high-quality weld seams.

What this means for you is:

- Lower material consumption.
- Less sweat.
- Shorter production times.
- Lower overall costs.

# Robust down to the last detail.

Protected against the rigours of everyday life with a comprehensive range of accessories.




### Durable wire feed case.

The MF-08 drop-proof wire feeder remains reliable even in harsh conditions and offers maximum freedom of movement.

### Safe mobility in manufacturing.

Makes it easier to transport the system and facilitates flexible workflows when working at different locations.

### More organisation. Less wear and tear.

Protects hose packages and cables from unnecessary strain during day-to-day use and makes them easier to handle.

### Made for the rigours of everyday life.

Protects the wire feeder during transport and installation work, and makes it easier to handle with a crane.

### Standard screen protector.

The securely bolted protective screen extends the service life of the control panel and ensures that the system remains operational at all times, even under harsh operating conditions.




### MF-08 safety frame.

In steel construction, equipment is regularly moved, hoisted by crane and used directly on the structural part. The safety frame safeguards against impacts and damage during day-to-day use and ensures safe handling.



### Greater freedom of movement at the part.

Positions the wire feeder where it is needed and makes it easier to work on large steel structures.



### The most important information right where the work is being carried out.

Keep an eye on your welding parameters at all times, without having to leave your workstation.



### Protection for demanding environments.

Reduces contamination from dust and metallic particles and helps to ensure high system availability.



With dust filter



Without dust filter

# Designed for tough steel construction jobs.

## When performance is not an option, but a prerequisite.

Whether it's industrial building construction, bridge construction, mechanical and plant engineering, steel structure assembly or structural engineering – wherever medium to large material thicknesses are processed, the **MicorSteel** impresses with its high power reserve and reliable operation.

It ensures consistent results even under demanding conditions and supports your production process precisely where value is created: at the weld seam.



Hall construction

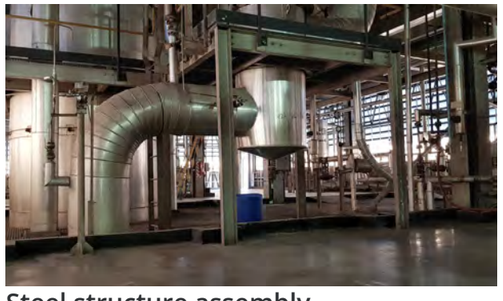


Bridge construction



Mechanical and Plant Engineering

MicorSteel delivers the performance – reliably, cost-effectively and without unnecessary complexity.



Steel structure assembly



Structural Engineering

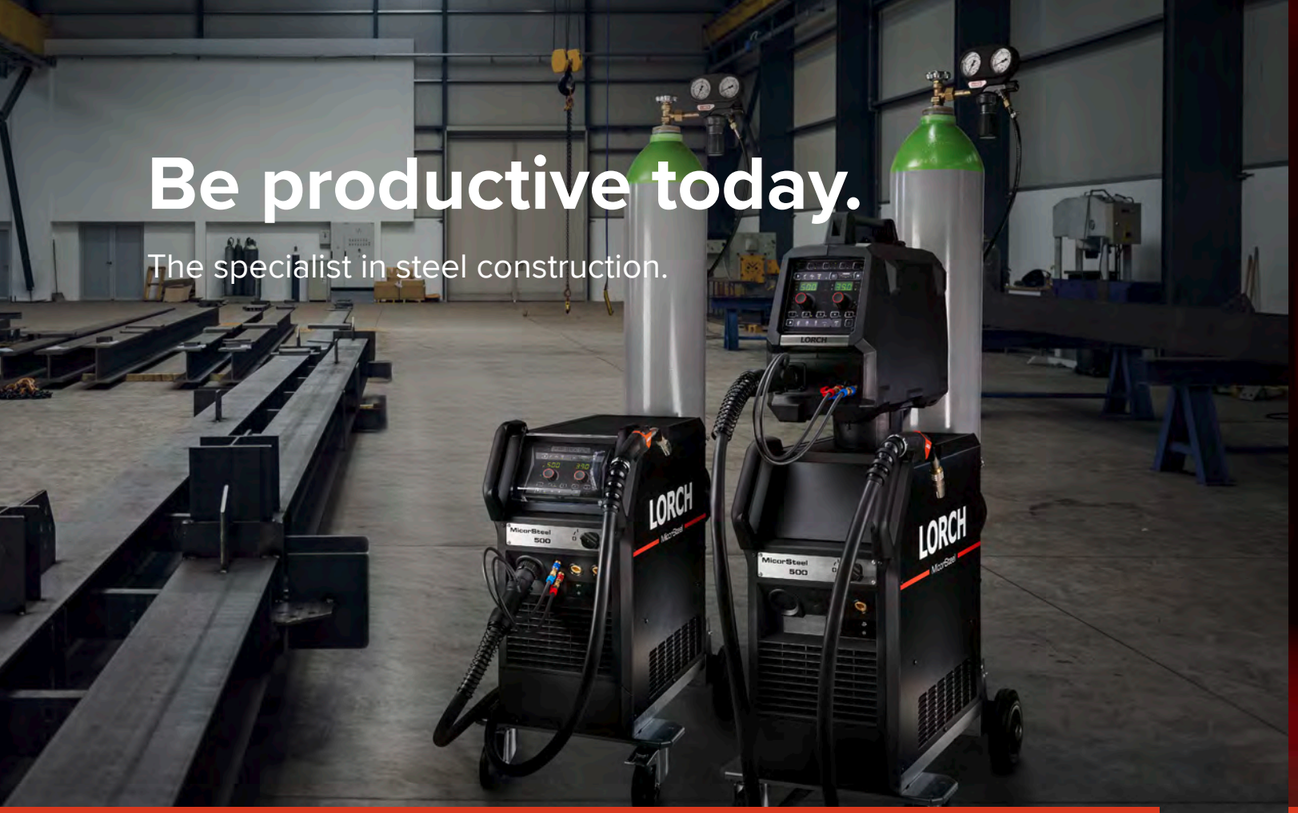
# VERSIONS

| | MicorSteel 400 | MicorSteel 500 |
|---|---|---|
| Welding range | 30 – 400 A | 30 – 500 A |
| Voltage setting | stepless | stepless |
| Mains supply 3–400 V | ● | ● |
| **Operation concepts** | | |
| ControlPlus | ● | ● |
| **Cooling options** | | |
| Water | ● | ● |
| **Setup versions** | | |
| Compact system | ○ | ○ |
| Suitcase system | ○ | ○ |
| Hose package length | 5m / 10m* | 5m / 10m* |

○ optionally ● standard equipment *other lengths available on request

# TECHNICAL SPECIFICATIONS

| | MicorSteel 400 | MicorSteel 500 |
|---|---|---|
| MIG-MAG adjustment range | 30A – 400A / 15,5V - 34,0V | 30A – 500A / 15,5V - 39,0V |
| Current at 100 % duty cycle | 300 A | 370 A |
| Current at 60 % duty cycle | 370 A | 430 A |
| ED at I max. | 45 % | 45 % |
| Synergy characteristics | FE, FCAW M., FCAW R. | FE, FCAW M., FCAW R. |
| Weldable wires | Steel diameter (mm) 0.8–1.6<br>Flux-cored wire (steel) diameter (mm) 1.2–1.6 | Steel diameter (mm) 0.8–1.6<br>Flux-cored wire (steel) diameter (mm) 1.2–1.6 |
| Mains voltage | 3~400 V | 3~400 V |
| Admissible mains tolerance | ± 15 % | ± 15 % |
| Mains fuse, slow blow fuse | 32 A | 32 A |
| Efficiency | 90% | 89% |
| Idling power | < 30 W | < 30 W |
| Dimensions of the compact power source (L × W × H) | 880 x 490 x 885 mm | 880 × 490 × 885 mm |
| Dimensions of the power supply unit for the separate wire feeder system (L × W × H) | 880 × 490 × 955 mm | 880 × 490 × 955 mm |
| Dimensions of the MF-08 wire feeder (L x W x H) | 575 x 245 x 434 mm | 575 x 245 x 434 mm |
| Weight of compact power source | 74 kg | 79 kg |
| Weight of the power supply unit in the separate wire feeder system | 71 kg | 76 kg |
| Weight of the wire feeder | 10,6 kg | 10,6 kg |
| Protection class | IP 23S | IP 23S |




# Be productive today.

The specialist in steel construction.

# Focus with the MicorSteel.

- Steel
- SpeedArc
- High deposition rates
- Easy to use
- Robust
- Attractive investment price

IDEAL FOR

- Hall construction
- Bridge construction
- General steel construction
- Steel structure assembly
- Structural Engineering






# Flexible tomorrow.

The all-rounder for growing demands.

# Grow with the MicorMIG.

- Stainless steel
- Aluminium
- Pulse MicorTwin
- Documentation
- Upgradeable
- Automation

MORE OPTIONS

- Ideal for a variety of applications and materials.
- Greater process diversity.
- Easily upgradeable via NFC to meet future requirements.
- Comprehensive quality and documentation functions.
- Wide range of applications.

Further information on the **MicorMIG series** can be found on our website.

## MICORSTEEL.
## FULL POWER FOR STEEL CONSTRUCTION.

**Your contact:**

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smart welding