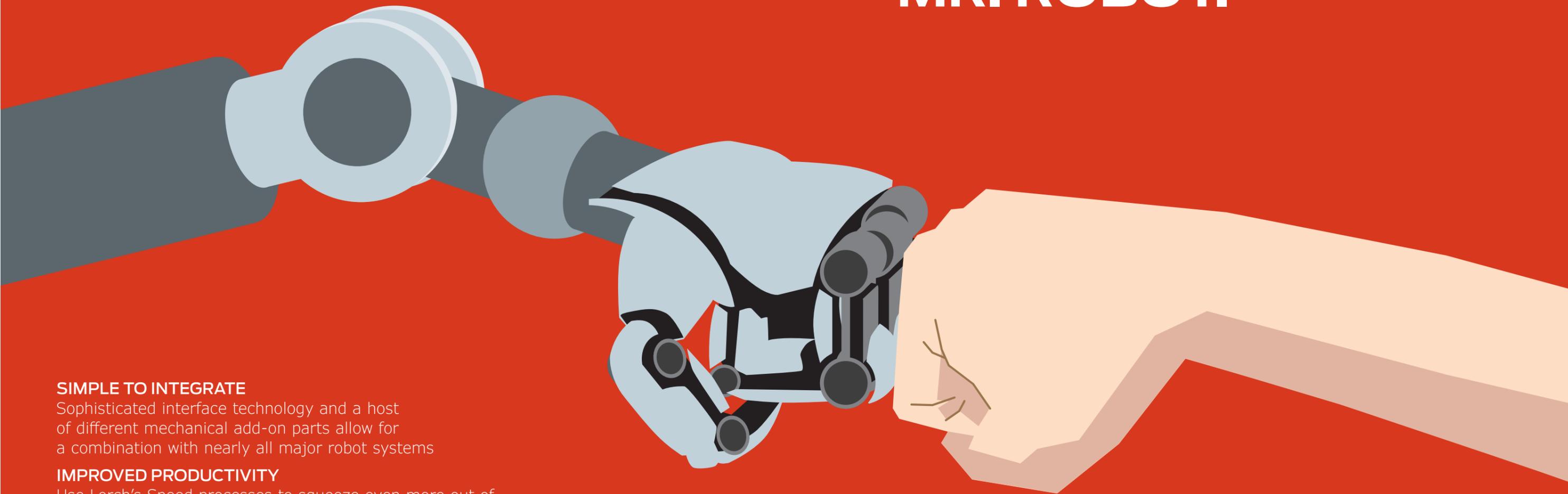


WORKING TOGETHER PERFECTLY:

LORCH POWER AND COLLEAGUE MR. ROBOT.



SIMPLE TO INTEGRATE

Sophisticated interface technology and a host of different mechanical add-on parts allow for a combination with nearly all major robot systems

IMPROVED PRODUCTIVITY

Use Lorch's Speed processes to squeeze even more out of every seam even when hooked up to a robot

COMPLETE CONTROL

If requested, now with welding data monitoring in real time for automatic quality assurance of your welding results

ROBO-MICORMIG. THE AFFORDABLE START INTO ROBOT WELDING.

The Robo-MicorMIG at a glance

- **MicorBoost technology.** The unparalleled MIG-MAG all-rounder capabilities offered by MicorBoost technology are just as impressive during robot welding. They deliver exceptional arc stability and outstanding mixed gas and CO₂ welding characteristics.
- **From exceptionally simple to ... whatever you need.** Sporting a no-frills design (feeder, interfaces and operation), the Robo-MicorMIG offers an affordable start into the world of robot welding, while letting you opt for a great number of functions and equipment options if you need them.
- **Comprehensive interface technology.** Highly advanced interface connectivity supports all common fieldbus and industrial Ethernet systems along with analogue-digital interfaces.
- **Innovative upgrade concept.** The Robo-MicorMIG can easily be adapted to ever increasing welding requirements by means of NFC technology. It is now possible at any time to upload welding processes, welding programs and functions that boost performance in addition to streamlining your workflow. Thanks to the Robo-MicorMIG you can rest assured that you are always up to date: now and for challenges yet to come.
- **Ready for more.** The Robo-MicorMIG can be expanded by both the two Speed processes SpeedArc and SpeedUp and by a standard pulse process in order to avoid transition arcs.



- **Tiptronic job management.** The ControlPro display makes using the Tiptronic function a cinch, allowing you to easily store the welding jobs you utilise most frequently. Another welcome feature the Robo-MicorMIG includes is the SystemManager, which lets you save welding jobs and transfer them to other machines.
- **Robo wire feeder.** The robot wire feeder RF-06 is compact, weight-optimised, powerful and perfectly insulated. While it is designed for standard and hollow wrist robots, you can also opt for a version that supports PushPull torch systems.
- **Extended range of sensors.** Optional seam tracking function, gas pressure detection or gas flow measurement allow for advanced control over your automated application.
- **Wide variety of accessories.** Mechanical add-ons for the most common robot versions and wire feeder configurations provide for easier integration.

Versions

	Robo-MicorMIG 300	Robo-MicorMIG 350	Robo-MicorMIG 400	Robo-MicorMIG 500
Welding range	A 25 - 300	25 - 350	30 - 400	30 - 500
Voltage adjustment	infinitely variable	infinitely variable	infinitely variable	infinitely variable
Machine system	stationary	stationary	stationary	stationary
Mains connection 3~400 V	●	●	●	●
Operating concepts				
BasicPlus	●	●	●	●
ControlPro	●	●	●	●
Cooling variants				
Gas	●	●	●	●
Water	●	●	●	●
Feeder variants				
RF-02	●	●	●	●
RF-06	●	●	●	●

● Configuration options ● Standard equipment

Operating concepts



BasicPlus

- "3 steps to weld" operating concept
- Infinitely adjustable welding current setting
- Digital volt-ampere display
- Activation of end crater filling as necessary
- Variable arc dynamic control
- Automatic setting control (Synergic control)
- Upgradability



ControlPro

- "3 steps to weld" operating concept
- Infinitely adjustable welding current setting
- Digital volt-ampere display
- High-luminosity graphic display (OLED) for display of the 3rd main parameter
- Activation of end crater filling as necessary
- Variable arc dynamic control
- Automatic setting control (Synergic control)
- Tiptronic job memory for 100 welding tasks
- Upgradability



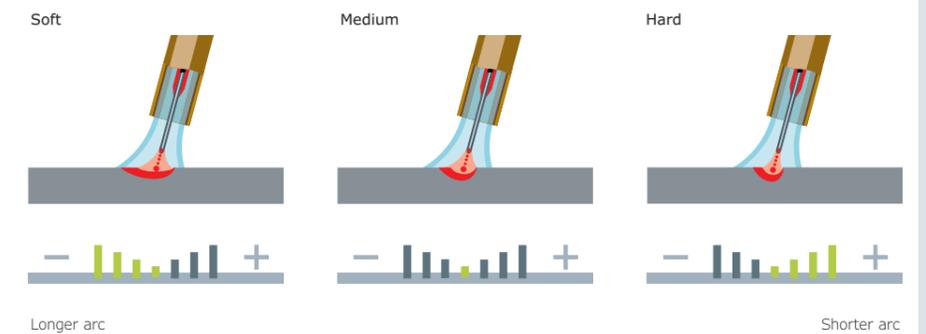
Control Pro also available as a remote control version.

Individual selection of the operating option. In the power source, as a remote control operating panel or both if needed.

Highlights

Arc dynamic control

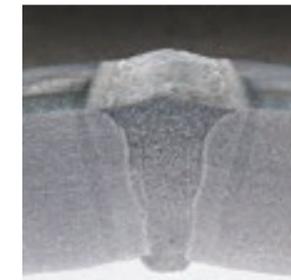
Robo-MicorMIG allows you to individually adjust the dynamics of the arc to suit the work and welding position at hand and will find the simplest and fastest arc setting that is most appropriate for each specific case. The rest of the job is carried out by the intelligent arc control technology. All essential parameters are controlled automatically in the background.



SpeedArc

SpeedArc developed by Lorch delivers an enormous energy density and, consequently, generates a greater arc pressure that flows into the weld pool. The result is impressive as it speeds up MIG-MAG welding tremendously. But, speed is not the only factor that takes productivity to unprecedented levels. There is also the fact that components which had to be welded in several passes before, can now - due to the Lorch SpeedArc - be joined in one single pass, up to 15 mm thick. This is productivity that pays off; this is value added welding.

Better yet, the highly concentrated, stable arc of the SpeedArc can also be used with long stick out for welding into narrow joints.



SpeedUp

The SpeedUp makes welding vertical seams exceedingly easy and excels especially as a 360 degree process. This capacity eliminates the need for complex positioning technology.

It combines the hot high-current phase - during which a great amount of energy is introduced to melt the material - with the cold phase to effect a reduced heat input - thereby, offering good penetration, exactly dimensioned weld seams and nearly perfect a-measurement dimensions. Unparalleled arc regulation delivers outstanding speed and produces results that show no transitions and virtually no spatter.



Pulse

Weld with next to no spatter - steel, stainless steel or aluminium

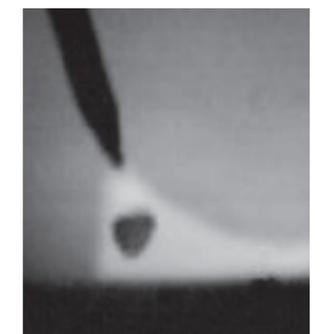
The rapid-action control technology of the Robo-MicorMIG in combination with the Pulse upgrade provides for virtually spatter-free welding across the entire material thickness range. The transition arc range during pulse welding is completely avoided. This technology saves you a great amount of tedious rework and unsightly spatter.

Flawless seam appearance - even on aluminium and stainless steel

A spatter-free weld seam, smooth seam transitions and improved sidewall fusion. From now on, you will master this challenge with ease thanks to the pulsed Robo-MicorMIG arc.

Reduced temper colours on stainless steel welds

Introducing a lower amount of energy into the workpiece, the pulsed Robo-MicorMIG arc reliably prevents any unnecessary temper colours. To top it all off, the process delivers all that plus excellent root penetration.



Highlights

Innovative upgrade concept

The Robo-MicroMIG keeps you perfectly flexible thanks to the built-in upgradability and modular design of its digital operating panel, control and inverter technology. This level of flexibility lets you enjoy both customised solutions that are tailored to accomplish your company's welding tasks and the assurance that you will keep benefiting from any future advances in technology. It has never been easier to adjust a welding system to the constantly changing requirements in the welding industry using NFC technology and to add on welding processes such as pulsed arc welding, welding programs and features that will streamline your workflows. It is even possible to upgrade and retrofit the operating panels of the Robo-MicorMIG series.

The purchase of a Robo-MicorMIG system translates to progress. Both at the time of purchase and the time thereafter. You add the functionality you need precisely when you need it. The Robo-MicorMIG allows you to be and remain on the safe side and to look forward to what the future holds in store.

Upgrade welding programs
e. g.:
- Multi-Material package (aluminium and stainless steel)
- Brazing package

Upgrade welding processes
e. g.:
- SpeedArc
- SpeedUp

Welding process
z. B.:
- Pulse Steel
- Pulse Multi-Material
- TIG

Functions of the future

FUTURE-PROOF

Upgrade
LORCH
Quality Made in Germany

Access management made easy



User identification and authorisation is possible at any time thanks to no-contact data transfers based on NFC technology.

The machine comes standard with two user management cards: "Administrator" and "Robot control only".

The feature **"Robot control only"** prevents unauthorised access to the power source during production. Rotary encoders and buttons (except menu button) are without function. Parameter settings and default values can only be transmitted from the robot control. The menu items Auxiliary parameters, User management and Machine data are read-only, while Language and Display brightness can be changed and adjusted, respectively.

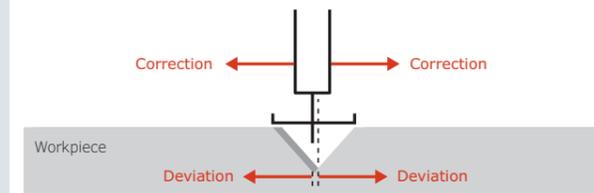
The "Administrator" has access to all menu items and parameters of the system. This ensures that only the welding supervisor and other authorised personnel have access to the system settings.



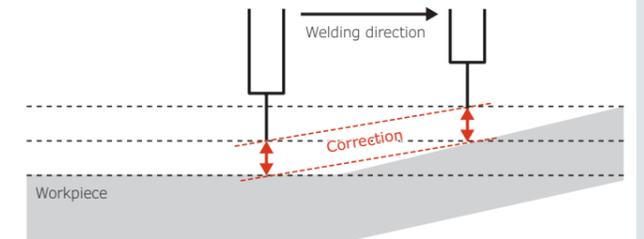
Seam tracking function

The control technology built into the Robo-MicorMIG performs real-time calculations based on a large number of information and uses the results to generate a signal that the robot control can understand. This seam detection and tracking function essentially allows the robot to continuously and automatically adjust the position of the torch guidance to the actual conditions of the workpiece. The signal that generated is suitable both for a vertical and horizontal adjustment of the torch guidance.

Horizontal seam tracking



Vertical seam tracking



BUS coupling system for all common protocols

The LorchNet Connector is responsible for the optimum connection between the Robo-MicorMIG power source and the robot control. It essentially acts as an interpreter translating all signals and information of the internal LorchNet bus system into a language the robot can understand. In other words: it converts the signals into one of the most commonly used fieldbus and industrial Ethernet protocols.

It is also capable of communicating all signals relevant to the torch control, e.g. purging function, anti-collision function, and contact sensor, entirely over the bus system.

Available as an alternative: Analogue-digital interfaces INT-06 and INT-02 for switch cabinet installation or built into the power source.



Technical data

		Robo-MicorMIG 300	Robo-MicorMIG 350	Robo-MicorMIG 400	Robo-MicorMIG 500
Welding current MIG-MAG	A	25 - 300	25 - 350	30 - 400	30 - 500
Current at 100% duty cycle	A	200	250	300	370
Current at 60% duty cycle	A	250	300	370	430
Duty cycle I max.	%	45	45	45	45
Mains voltage	V	3~400	3~400	3~400	3~400
Permitted mains tolerance	%	± 15	± 15	± 15	± 15
Mains fuse, delayed action	A	32	32	32	32
Dimensions (L x W x H)	mm	880 x 400 x 800			
Weight (gas-cooled)	kg	58	58	61	66
Weight wire feeder case RF-06	kg	7.2	7.2	7.2	7.2
Weight - water cooling (filled)	kg	13.0	13.0	13.0	13.0