MICORMIG PULSE SERIES
MICORMIG SERIES

Grows with your challenges.

www.lorch.eu

LORCH
smart welding

BIG ADVANTAGE ON THIN SHEETS.

GOOD-BYE, TRANSITION ARC
Weld without spatter thanks to a stable and easy-to-control pulse arc

EXCEPTIONALLY VERSATILE
The right short arc, pulsed arc or spray arc for any job

EFFORTLESS HANDLING
Intuitive set-up, easy operation and minimum rework distinguish the MicorMIG Pulse as a favourite among welders

The MicorMIG Pulse series at a glance

- **Pulse arc.** Easy to set up and robust, the pulse process integrated into the MicorMIG Pulse now lets you weld with no transition arc. This improvement guarantees welding with no spatter, saving you valuable time and eliminating the hassle of extensive rework and the need to change the welding wire.
- **Enhanced performance thanks to MicorBoost.** Our MicorBoost technology affords you even greater effectiveness at a higher degree of efficiency when completing MIG-MAG welding tasks. Moreover, fast-action control technology provides for a perfect droplet transition of the pulse arc.
- **Upgradability.** It has never been easier to adjust a welding system to the constantly changing requirements in the welding industry and to add on welding processes, welding programs and features that will streamline your workflows.
- **Ready for Speed.** Take your productivity to the next level by adding the optional Lorch Speed processes “SpeedUp” and “SpeedArc” to your MicorMIG Pulse.

3 YEARS INDUSTRIAL WARRANTY LORCH

LORCH MICORBOOST TECHNOLOGY

- **EN 1090-certified.** Effortlessly weld in conformity with EN 1090 specifications thanks to the synergic function and automatic setting control. Combine your machine with Lorch’s special offer EN 1090 package as well as parameter setting control by NFC cards, and you are ready to handle any welding task they can throw at you.
- **Job management.** You can use the ControlPro operating panel to write any welding job you have set up to a blank NFC card and retrieve the stored information at any Lorch MicorMIG power source (BasicPlus or greater) whenever you need it.
- **PushPull.** Increase your working radius significantly by combining the system with a combination of PushPull torch and Lorch NanoFeeder.
- **Welder identification made easy.** This feature makes the assignment of set-up and operating rights completely painless. The contact-less data transfer option available for Lorch’s MicorMIG Pulse series makes it possible to identify the welder at any time.

Versions

	MicorMIG Pulse 300	MicorMIG Pulse 350	MicorMIG Pulse 400	MicorMIG Pulse 500
Welding range A	25 – 300	25 – 350	30 – 400	30 – 500
Voltage adjustment	infinitely variable	infinitely variable	infinitely variable	infinitely variable
Mains connection 3~400 V	●	●	●	●
Mains connection 3~230 V	–	–	○	○
Operating concepts				
BasicPlus	●	●	●	●
ControlPro	●	●	●	●
Cooling variants				
Gas	●	●	●	●
Water	●	●	●	●
Machine variants				
Compact system	●	●	●	●
Wire feeder system	●	●	●	●

● Configuration options ● Standard equipment ○ Optionally available

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
- 7-stage arc dynamic control
- Automatic setting control (synergy control)
- Welding program selection in the feed compartment
- 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
- 21-stage arc dynamic control
- Automatic setting control (synergy control)
- Welding program selection in the feed compartment
- Tiptronic job memory for 100 welding tasks
- Upgradability

Highlights

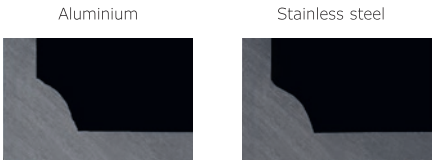
Weld with next to no spatter – steel, stainless steel or aluminium

All in a day's work of every welder: Welding in the transition arc range routinely results in ungainly weld appearance including plenty of spatter. The poor outcome, in turn, requires rework that costs both time and money. Until now, the sole solution to this problem involved frequent wire changes or the use of special gases.

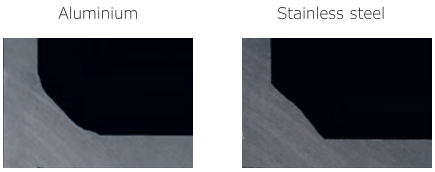
Smart solution by Lorch: No matter if you weld steel, stainless steel or aluminium. Tried and tested in the real world, the MicorMIG Pulse arc combined with quick-action control technology delivers welding performance with next to no spatter – even in the transition arc range, saving you a great amount of tedious rework.

Flawless seam appearance – even on aluminium and stainless steel

All in a day's work of every welder: The quality of the sidewall fusion and of the seams welded on aluminium and stainless steel in the short arc range almost never conform to in-house standards. The consequence: Substandard quality along with time-consuming and costly rework.



Smart solution by Lorch: A spatter-free weld seam, smooth seam transitions and improved sidewall fusion. From now on, you will master this challenge with ease as well thanks to the MicorMIG Pulse arc and exceptional ease of use.



Reduced temper colours on stainless steel welds

All in a day's work of every welder: A great many welders striving for root coverage of the greatest possible accuracy during welding on stainless steel resort to a current intensity level that is much higher than actually necessary. The consequence are temper colours on stainless steel welds.

Smart solution by Lorch: Introducing a lower amount of energy into the workpiece, the MicorMIG Pulse arc reliably prevents any unnecessary temper colours. The MicorMIG Pulse arc, furthermore, reduces time-consuming and cost-intensive rework such as for the removal of temper colours to a minimum. To top it all off, the process delivers all that plus clean root coverage.

Equipment

	MicorMIG Pulse
Welding process	
Standard synergy MIG-MAG welding programs	●
Pulse Steel	●
Pulse Multi-Material	○
SpeedArc	○
SpeedUp	○
Electrode Plus	○
TIG (with ContacTIG)	○

● Standard equipment ○ Optionally available

Technical data

		MicorMIG Pulse 300	MicorMIG Pulse 350	MicorMIG Pulse 400	MicorMIG Pulse 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 compact system (L × W × H)	mm	880 × 490 × 855	880 × 490 × 855	880 × 490 × 855	880 × 490 × 855
Dimensions wire feeder system (L × W × H)	mm	880 × 490 × 955	880 × 490 × 955	880 × 490 × 955	880 × 490 × 955
Weight – compact system, gas-cooled	kg	58	58	61	66
Weight – wire feeder	kg	10.6	10.6	10.6	10.6
Weight – water cooling (filled)	kg	13.0	13.0	13.0	13.0

The NanoFeeder

The wire feeder unit of the MIG-MAG welding power source is combined with other, separate wire-feed systems for the push-pull principle. The NanoFeeder takes over the role of an intermediate drive. It is a full wire feeder – but in a revolutionary Nano format. The Lorch welding power source takes over the matching of the wire feed systems automatically, using the optional, digital Push-Pull controller. In this way the complex and also costly, additional external controller is completely unnecessary.

- range up to a maximum of 50 m
- available as gas or water cooled
- various hose package lengths
- compact and sturdy construction
- also suitable for use with Powermaster torches

How far would you like to go – with your MIG-MAG torch?

Power source

up to 20 m

Feeder

up to 25 m

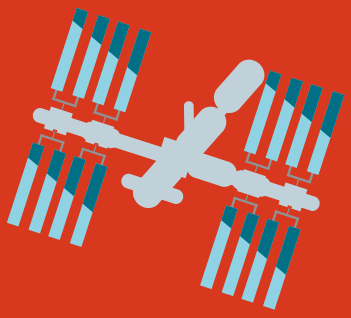
NanoFeeder

up to 5 m

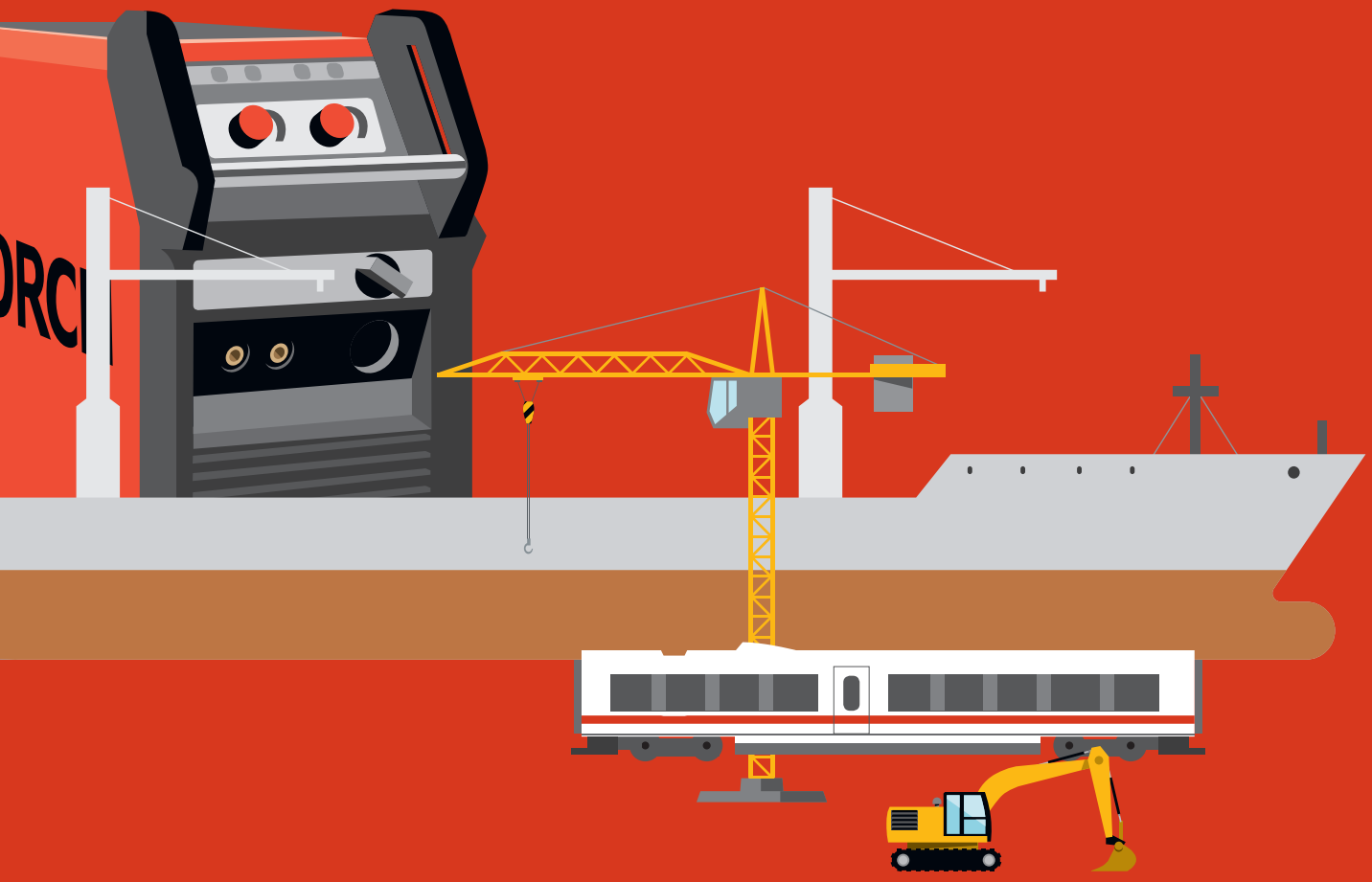
Torch

Technical data

		NanoFeeder	NanoFeeder
Cooling		Water	Gas
Load CO_2 | mixed gas	A	500	400
Duty cycle	%	60	60
Wire Ø	mm	0.8 – 1.6 (AL 1.2)	0.8 – 1.6 (AL 1.2)
Hose package lengths	m	10 | 15 | 20 | 25	10 | 15 | 20 | 25



GROWS WITH YOUR CHALLENGES.



FUTURE-PROOF
Built-in ability to be upgraded with future welding processes and features

HIGHLY CUSTOMIZABLE
Maximum flexibility for every situation

CONTINUOUS INTELLIGENCE
Perfect arc with adjustable dynamic range

The MicorMIG series at a glance

- **Versatility.** Lorch's MicorMIG is set apart by the exceptional MIG-MAG welding characteristics it delivers – regardless of whether the welder uses mixed gas or CO_2.
- **Dynamic control.** Select the arc characteristic you prefer. Depending on the operating panel you have selected, you can opt for dynamic levels that range from "soft" to "hard".
- **Synergic pre-selection.** MicorMIG versions BasicPlus and greater offer a large number of welding programs for various material, wire and gas combinations. Depending on the design of your machine, you can set the programs in the wire feed compartment of the case or in the wire feed compartment of the compact system.
- **Upgradability.** Never before has it been easier to adjust a welding machine to the ever increasing challenges posed by today's welding tasks. It is now a breeze to upload welding processes, welding programs and functions to the MicorMIG that both boost performance and streamline the workflow.
- **Enhanced performance thanks to MicorBoost.** Our MicorBoost technology affords you even greater effectiveness at a higher degree of efficiency when completing MIG-MAG welding tasks. Better still, you will also be able to draw on higher voltage reserves when you need to produce perfect electrode welding results – even if using CEL and special electrodes.

3 YEARS INDUSTRIAL WARRANTY LORCH

LORCH MICORBOOST TECHNOLOGY

- **EN 1090-certified.** Effortlessly weld in conformity with EN 1090 specifications thanks to the synergy function and automatic setting control. Combine your machine with Lorch's special offer EN 1090 package as well as parameter setting control by NFC cards, and you are ready to handle any welding task they can throw at you.
- **Ready for Speed.** Complete your welding jobs with even greater ease and speed by implementing optional Lorch Speed upgrades into your MicorMIG machine.
- **Job management.** The ControlPro display with Tiptronic function makes it a snap to store welding tasks and retrieve and transfer them to other machines as necessary.
- **PushPull.** When combining the system with a PushPull torch or Lorch's NanoFeeder, you will expand your working radius significantly.
- **Welder identification made easy.** This feature makes the assignment of set-up and operating rights completely painless. The no-contact data transfer option available for Lorch's MicorMIG series makes it possible to identify the welder at any time.
- **Gouging.** The MicorMIG stands out from the rest by its ability to weld electrodes including special electrodes, which it can gouge (starting at 400 A) and weld when combined with the optional Electrode Plus upgrade.

Versions

	MicorMIG 300	MicorMIG 350	MicorMIG 400	MicorMIG 500
Welding range A	25 – 300	25 – 350	30 – 400	30 – 500
Voltage adjustment	infinitely variable	infinitely variable	infinitely variable	infinitely variable
Mains connection 3~400 V	●	●	●	●
Mains connection 3~230 V	–	–	○	○
Operating concepts				
Basic	●	●	●	●
BasicPlus	●	●	●	●
ControlPro	●	●	●	●
Cooling variants				
Gas	●	●	●	●
Water	●	●	●	●
Machine variants				
Compact system	●	●	●	●
Wire feeder system	●	●	●	●

● Configuration options ● Standard equipment ○ Optionally available

Operating concepts

Basic

- "3 steps to weld" operating concept
- Infinitely adjustable welding current setting
- Digital volt-ampere display
- Activation of end crater filling as necessary
- 3-stage arc dynamic control

BasicPlus

- "3 steps to weld" operating concept
- Infinitely adjustable welding current setting
- Digital volt-ampere display
- Activation of end crater filling as necessary
- 7-stage arc dynamic control
- Automatic setting control (synergy control)
- Welding program selection in the feed compartment
- 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
- 21-stage arc dynamic control
- Automatic setting control (synergy control)
- Welding program selection in the feed compartment
- Tiptronic job memory for 100 welding tasks
- Upgradability

Highlights

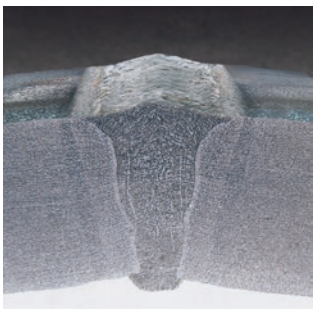
SpeedUp – Vertical-up welding has never been so easy or fast

If you hammer an oversize hole in a wall just in order to lay a thin cable, you will need a lot of time to plaster it up again. This was also the case for vertical welding. Until now! SpeedUp by Lorch works in a much more precise way: Like a small, exact hole in the wall which is then re-plastered fast as the wind, you will apply exactly the "a"-measurement you need. It sounds simple, and it really is. Because even semi-skilled welders master the SpeedUp process in a very short time. With excellent root penetration, they also now weld vertically up in an easy and skilful manner.

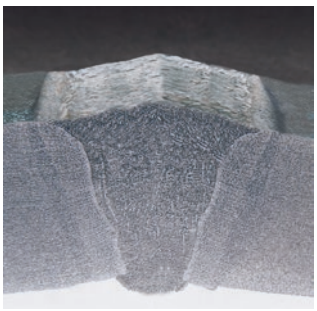
On the left, the challenging Christmas tree,
on the right, the ingeniously simple SpeedUp.

SpeedArc turns welding into a streamlined process

SpeedArc sets itself apart by its highly focused and stable arc combined with an energy density that stands head and shoulders above any other comparable process. Delivering much deeper penetration into the base material across the entire power range, this process delivers a level of penetration to which ordinary MIG-MAG machines simply cannot measure up. The increased arc pressure that flows into the SpeedArc weld pool adds a significant speed boost to MIG-MAG welding across the entire power range, which makes the process much easier to control and, consequently, much more economical.



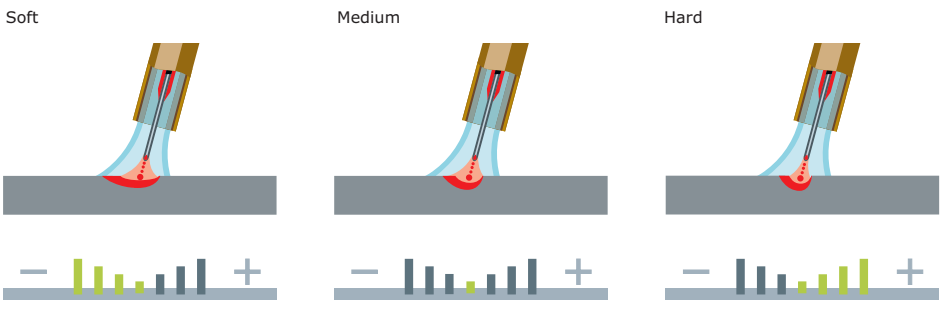
SpeedArc



MIG-MAG

Multi-stage dynamic control

The 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 which is most suitable for each specific case. The rest of the job is carried out by the intelligent arc control technology incorporated into the MicorMIG series. All essential parameters are controlled automatically in the background.



Highlights

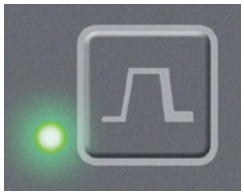
Unlimited upgradeability comes standard

A transformer system will stay the way it was built. Its expandability and functional scope are limited on account of its hardware. Not so with the MicorMIG. When you opt for this system, you will remain perfectly flexible thanks to the upgradeabilty and modular design of its fully digital control inverter technology and feedback control systems. The 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 (BasicPlus and greater), welding programs and features that will streamline your workflows. It is even possible to upgrade and retrofit the operating panels of the MicorMIG series. The purchase of a 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 MicorMIG allows you to be and remain on the safe side and to look forward to what the future holds in store.

End crater filling

Step-controlled systems commonly create a sink mark at the end of the weld seam, the so-called end crater. The MicorMIG provides you with an easy and reliable solution to the problem of maintaining the same quality along the entire weld seam – especially at the end. The operating panel offers a quick and easy way to enable the quality feature "crater filling". Instead be being terminated abruptly, the welding current is reduced in a well-controlled manner. The MicorMIG, thereby, allows you to achieve a seam appearance that will leave nothing to be desired.

Without crater filling.



With crater filling – perfect end of weld seam.

3 steps to achieve weld perfection

1. Select process / operating mode
2. Adjust welding current
3. Fine-tune arc characteristics

Clever details for improved everyday welding

Quick-change system

Even the easily accessible wire feeder of the MicroMIG reflects painstaking attention to the tiniest detail. The perfectly matched change system makes changing the sturdy and durable Lorch feed rolls a cinch. No need for even a single screw.

Colour-coded feed rolls

Never pick up the wrong rolls again. Lorch's colour-coded feed rolls of the MicorMIG series represent different wire diameters and make every welder´s life much easier.

Synergic pre-selection – where it should be

MicorMIG versions BasicPlus and greater offer a large number of welding programs for various material, wire and gas combinations. Depending on the design of your machine, you can set the programs at the wire reel in the wire feed compartment of the compact system or the wire feeder case.

Top-tier electrode welding

A MIG-MAG system that can also handle electrodes. Simply remove the torch, connect the additional electrode holder to the electrode socket, and select electrode welding on the operating panel.

Highlights

Heavy-duty undercarriages

Wherever the manufacturing process calls for crane transport of heavy components or the machine itself to the workstation, a robust and dependable welding system is of paramount importance. The long-lasting industrial housing of the Lorch MicorMIG and its optional heavy-duty undercarriages was designed specifically for applications of this nature. The outcome is a system that delivers perfect dependability even under the most trying conditions. Customise your Lorch heavy-duty undercarriage and tailor it to your heavy-duty needs. Even when required to handle inter-connection hose packages with a length of 20m, the Lorch heavy-duty undercarriage plus MicorMIG and the optional large inter-connection hose package holder remains perfectly tilt-proof and stable.

Optionally available:
inter-connection hose package holder

EN 1090-certified

All welding tasks will then have to be completed based on an approved welding process. When using a Lorch MicorMIG, you will not have to worry about whether your welding operations comply with the EN 1090 standard. This is because we had all processes and synergic characteristics officially certified by an approved inspection agency.
Our EN 1090 WPS booklet provides a quick, efficient and cost-effective way for any business – regardless of its size – to provide their customers with the required proof that their welding operations is in compliance with the standard. Lorch's EN 1090 special offer package is made complete by Lorch's calibration service which ensures that your welding operations will continue to satisfy WPS requirements.

Equipment

	MicorMIG
Welding process	
Standard synergy MIG-MAG welding programs	●
Pulse Steel	○
Pulse Multi-Material	○
SpeedArc	○
SpeedUp	○
Elektrode Plus	○
TIG (with ContacTIG)	○

● Standard equipment ○ Optionally available

Technical data

		MicorMIG 300	MicorMIG 350	MicorMIG 400	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 compact system (L × W × H)	mm	880 × 490 × 855	880 × 490 × 855	880 × 490 × 855	880 × 490 × 855
Dimensions wire feeder system (L × W × H)	mm	880 × 490 × 955	880 × 490 × 955	880 × 490 × 955	880 × 490 × 955
Weight – compact system, gas-cooled	kg	58	58	61	66
Weight – wire feeder	kg	10.6	10.6	10.6	10.6
Weight – water cooling (filled)	kg	13.0	13.0	13.0	13.0

The NanoFeeder

The wire feeder unit of the MIG-MAG welding power source is combined with other, separate wire-feed systems for the push-pull principle. The NanoFeeder takes over the role of an intermediate drive. It is a full wire feeder – but in a revolutionary Nano format. The Lorch welding power source takes over the matching of the wire feed systems automatically, using the optional, digital Push-Pull controller. In this way the complex and also costly, additional external controller is completely unnecessary.

- range up to a maximum of 50 m
- available as gas or water cooled
- various hose package lengths
- compact and sturdy construction
- also suitable for use with Powermaster torches

Technical data

		NanoFeeder	NanoFeeder
Cooling		Water	Gas
Load CO_2 | mixed gas	A	500	400
Duty cycle	%	60	60
Wire Ø	mm	0.8 – 1.6 (AL 1.2)	0.8 – 1.6 (AL 1.2)
Hose package lengths	m	10 | 15 | 20 | 25	10 | 15 | 20 | 25

The full-protection wire feeder MF-08

Robust and exceptionally stable.

The MF-08 provides every welder with exactly the wire feeder case he can expect – and much more. Made of high-performance plastic, the housing of this fully protected feeder case offers one thing first and foremost apart from stability and robustness: Safety.
In contrast to conventional cases made of metal, the MF-08 is fully insulated and, thus, uniquely capable of handling applications that rank among the trickiest and most challenging from a technical standpoint.
The MF-08 – a genuine safety advantage for every business.

At a glance

- **Exceptional flexibility.** For extended range and a maximum of comfort and mobility.
- **Stable.** The wire feeder case is solidly mounted on the power source and can be swivelled.
- **Extremely robust and protected against falls.** Even if experiencing a fall from a height of 60 cm.
- **Illuminated wire feeder compartment.** This makes changing the wire a breeze even in poor light conditions.
- **A genuine lightweight in its class.** Only 10.6 kg net weight.
- **A perfect grip.** Several convenient handle options.
- **Suitable for use in manholes.** Can be handed in and out of manholes with no effort at all.
- **Versatile.** Fixture for hanging it from a boom or position it overhead.

3 YEARS INDUSTRIAL WARRANTY LORCH

Technical data

		MF-08
Feeder speed	m/min	2.0 – 25.0
Drive / feeder		4-roll / tacho-regulated motor / digital speed feedback
Suitable for use in manholes	cm	> 42*
Fully insulated		●
Flowmeter gas		○
Dimensions (L × W × H)	mm	575 × 245 × 434 (380**)
Weight (net)	kg	10.6

* Oval manhole with handle removed ** Height with handle removed ● Standard equipment ○ Optionally available

Highlights

Surprisingly simple – and accessible from both sides

One important aspect as to how well a compact wire feeder case with manhole suitability will fare during everyday use is the ease with which you can insert the wire reel. The slightly slanted wire reel and side covers that swing open and lock into place allow for easy access to the compartment, especially in the top portion of the unit. As an added benefit, the other side of the feeder case can be opened as well. The electronic system and the motor are protected and covered in such a way that you are afforded convenient access to all connections of the hose package.

The locking mechanism and the strain relief device of the inter-connection hose package can be replaced by the welder themselves or, if necessary, be transported separately from the case. Better still, this step is completely straightforward and safe and does not require any contact with the sensitive area.

Equipped to handle all types of applications

Optionally available:

Heavy-duty undercarriage kit

Protection cage with tube frame

Heat protection skids

Boom suspension

Whether upright or horizontal – easy to control in every position

Every range of application poses its own challenges. Sometimes you wish for a horizontal case while some tasks require a vertical case. MF-08 offers you both options: it can be used upright or in a vertical position. This is thanks to the sturdy and distinctive support feet found on the side. In case you need the case to be permanently horizontal. You can have the operating panel built in rotated by 90°. You will always carry the fully protected case with ease in the upright position. This is what we call flexibility or plain “convenience”.

Lorch Schweißtechnik GmbH
Im Anwänder 24–26 · 71549 Auenwald · Germany
T +49 7191 503-0 · F +49 7191 503-199
info@lorch.eu · www.lorch.eu

LORCH
smart welding