

Lorch MicorMIG

The new standard.
Transformers are yesterday, inverters are for today.



LORCH



The MicorMIG series

The new MIG-MAG generation.

| | |
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Quality
Made in Germany

The MicorMIG series

Transformers are so yesterday – **Micor inverter technology is today. Simply better.** The MIG-MAG all-rounder for every application.

Reliable, robust, simple to control and yet offered at a reasonable price. These are aspects usually associated with a step-controlled MIG-MAG welding system. But that was yesterday. It's time to start thinking differently. This is because Lorch MicorMIG **sets new standards** and makes switching to a modern, infinitely variable welding system as easy and effective as can be. Apart from offering **superior welding properties** the system also offers an exceptional price-performance ratio and **simply comes across as a better alternative to the common transformer system.** A transformer is only as good as its hardware. MicorMIG has simply more to offer. Real-world benefits such as **dynamic control** and **crater filling** – attributes that are nearly unimaginable in a transformer system. The MicorMIG offers you three different operating concepts, from very simple – similar to a transformer system – to convenient control including display, and enjoy a handling that offers superior ease and intuitiveness.



Plus a benefit that cannot be beaten: Its **patented Micor technology** lets every welder achieve perfection thanks to outstanding welding characteristics. For steel, stainless steel and aluminium. The system is, furthermore, certified in accordance with EN 1090 and **fully upgradeable.** If needed, you can simply add additional functions and welding processes, thereby remaining prepared to take on any welding challenge you may face in the future. All of this is unthinkable with a transformer system. The MicorMIG can do it. Excellent all around.



The MicorMIG at a glance

- ✓ Infinitely variable welding inverter for MIG-MAG welding
- ✓ Innovative and patented Micor technology delivers maximum power and exceptional welding characteristics
- ✓ Superior welding performance on steel, stainless steel and aluminium
- ✓ Exceptionally well-suited for mixed gas and CO₂
- ✓ With electrode welding function
- ✓ Can be upgraded by additional functions and welding processes such as SpeedArc to boost MIG-MAG welding speeds by up to 30 %
- ✓ Available as a compact system or with separate wire feeder case
- ✓ Available as gas or water cooled
- ✓ Industrial 4/2-roll precision wire feeder also available with 4/4 precision wire feeder
- ✓ “3 steps to weld” operating concept
- ✓ Three control panels to choose from: Basic, BasicPlus, ControlPro (including synergy control for BasicPlus or greater)
- ✓ Including crater filling as well as dynamic control
- ✓ Digital display of welding current and voltage
- ✓ User identification option via RFID
- ✓ Possibility for remote control torch with the Powermaster torch
- ✓ Can be optionally equipped for push-pull torch and Lorch NanoFeeder (for up to 50 m welding range)
- ✓ In a robust, completely transportable industrial housing. Models MicorMIG 350 or greater come standard in an industrial housing with extra-wide chassis
- ✓ Manufactured and tested according to DIN EN 60974-1, with CE mark, S-symbol and IP 23

MIG-MAG perfection **to the very end.**

MicorMIG never settles, not even after reaching the end of the seam. Step-controlled systems commonly create a sink mark at the end of the weld seam, the so-called end crater. Apart from looking unpleasant, this mark represents a weak spot in the weld seam that may, at worst, result in cracks. This is not what we consider quality. MicorMIG offers you a reliable and straightforward solution: You can conveniently enable **the quality feature “crater filling”** directly on your operating panel. Instead of being terminated abruptly, the welding current is reduced in a well-controlled manner. The weld pool is given enough time to cool down, and the end crater is filled automatically with material when the welding current is rather low. The result: **a weld seam with completely convincing quality.**



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 _____

Done as intended:

Dynamic control with a push of a button.

You know how it is from experience. Every transformer system has its own unique characteristics. One system produces a slightly softer arc, while the next generates a slightly harder arc. More importantly, every welder has his own preference in terms of what he considers to be the perfect arc: **softer and longer, shorter and harder or somewhere in between.** This calls for a level of distinction that a transformer system simply cannot realise. Not so with the MicorMIG: Our system 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 suitable in each 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 to achieve a perfect weld seam every time.



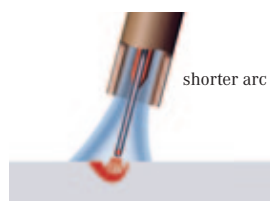
Arc setting: **soft**



Arc setting: **medium**



Arc setting: **hard**



Easy handling guaranteed – the o

Basic



- ✓ Infinitely adjustable welding current setting
- ✓ Voltage and amperage display
- ✓ Activation of end crater filling as necessary
- ✓ 3-stage arc dynamic control

BasicPlus



- ✓ Infinitely adjustable welding current setting
- ✓ Voltage and amperage display
- ✓ Crater filling
(can be adjusted in the submenu)
- ✓ 7-stage arc dynamic control
- ✓ Synergy control
- ✓ Welding program selection in the feed compartment
- ✓ Full upgradeable

The MicorMIG grows with “your” Future-proof thanks to built-in up

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 upgradeability** 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



No more need to switch back and forth between workpiece and machine. All operating concepts can be combined with Lorch’s Powermaster remote torch control technology.



operating concepts of the MicorMIG

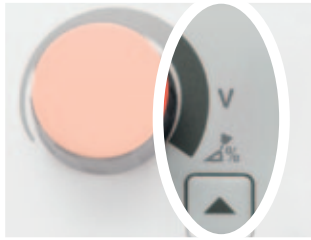
Simply greater functionality
and precision

Power settings



Custom machine setting
options via amperage, wire feed
speed or material thickness –
tailored to your specific needs

Arc adjustment



Custom arc adjustment via the
welding voltage with the option
of displaying the percentage
deviation from the suggested value

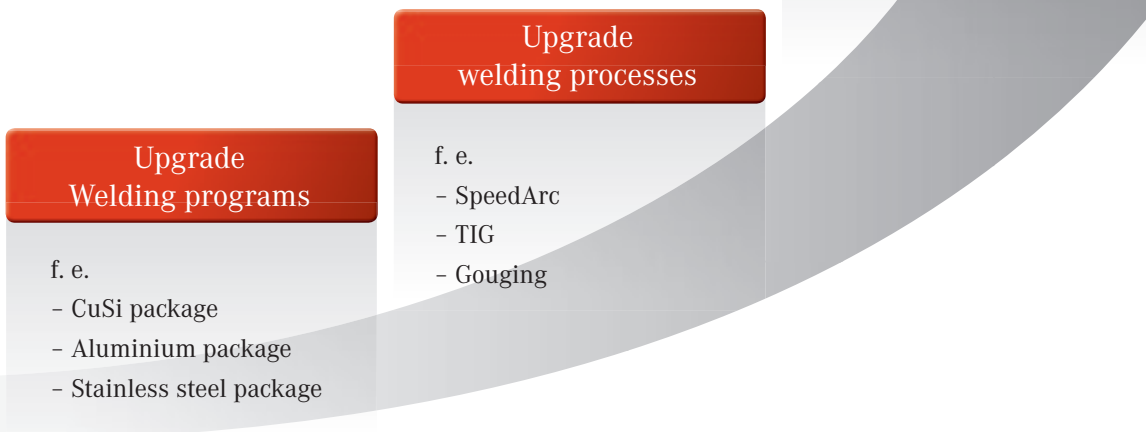
ControlPro



- ✓ Infinitely adjustable welding current setting
- ✓ Voltage and amperage display
- ✓ Additional, large OLED graphic display for convenient and intuitive menu navigation as well as 3 main navigation parameters and wire feed speed
- ✓ Crater filling (can be adjusted in the submenu)
- ✓ 21-stage arc dynamic control
- ✓ Synergy control
- ✓ Welding program selection in the feed compartment
- ✓ Tiptronic job memory
- ✓ Unlimited upgradeability

challenges.
upgradeability.

changing requirements in the welding industry and to add on welding processes, 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.



Only practical Clever details for improvement

Compact, robust and functional.
The ideal companion for every company.



50 l cylinder trolley



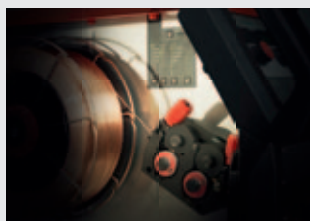
Cylinder trolley with double chain locks and a low loading edge.

Protection in every detail



Large handles allows you to move the system with greater ease and protect switches and connections at the same time.

Wire compartment lighting



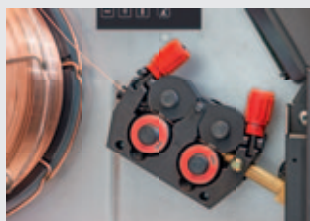
High-power LEDs illuminate the compartment effectively, making it much easier for you to change the reel and thread in the wire even in complete darkness or low light conditions.

Synergic pre-selection – where it should be



MicorMIG versions BasicPlus and greater offer a large number of welding programs for various material/wire/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.

Changing rolls without tools



The standard 4-roll quality wire feeder sets itself apart by its sturdiness, compact dimensions and easy roller exchange that requires no tools. The standard 2-driven feed system can easily be upgraded to a 4-driven feed system, simply by exchanging the rollers.

Colour coding of the 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.

cal use matters: ved everyday welding.

For demanding applications.
The MicorMIG industrial housing for
models 350 A or greater.

Improved stability



Its extra wide track provides for enhanced stability and additional collision protection.

Easy to lift by crane



Specially designed crane eyes and the low weight allow for smoother transport and lifting by cranes.



Optimised 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.

Welder identification made easy



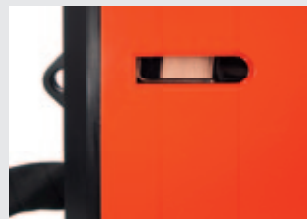
Clear definition of the modification and usage rights for different users. Increasingly becoming a must for modern production plants. Welder identification made easy. Simple by using the RFID/NFC technology built into the operating panel.

Exchange of the inter-connection hose package



The locking mechanism and the strain relief device of the inter-connection hose package can be replaced by the welder himself or be transported separately from the case.

For clearer views



Trust is good, but control is better. There is nothing more annoying than having to take an unscheduled break from work to go and fetch a new roll of wire. When using a MicorMIG case, all you have to do is take a quick glance at the built-in fill level indicator to know how much wire is still left at your disposal.

Powerful MIG-MAG all-rounder for every application

The MicorMIG series will win you over with its outstanding welding performance on sheet metal and in the area of medium to heavy steel work. Also, certified in accordance with EN 1090.



Quality management made easy. The cost-saving solution for the EN 1090.

All businesses whose welding operations are subject to building authority approval have to meet the provisions of the EN 1090 standard from mid-2014. 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 the MicorMIG series (starting with the Basic-Plus version including synergic control and automatic setting control enables small businesses as well as and large corporations to provide the evidence of conformity required by the **EN 1090** in a **quick, efficient and cost-effective way** for metal sheets with a tensile yield strength of up to 355 N/mm².

The corresponding EN 1090 WPS package lets you avoid time-consuming individual tests as the package contains welding instructions that apply to all relevant standard welding processes and have been **certified by an approved german inspection authority**. What is more, the MicorMIG can be combined with Lorch's Q-Data, an additional recorder system, that **offers welding data documentation** the way it should be: as easy as it can be. The recorder also comes with evaluation and documentation software that records all of your welding activity. 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. Lorch quality "Made in Germany" allows you to be and remain fit for the future.



The power variants



| | MicorMIG 300 | MicorMIG 350 | MicorMIG 400 | MicorMIG 500 |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Welding range | | | | |
| MIG-MAG | 30 – 300 A | 30 – 350 A | 30 – 400 A | 30 – 500 A |
| Voltage adjustment | infinitely variable | infinitely variable | infinitely variable | infinitely variable |
| Welding gases | Mixed gas + CO ₂ | Mixed gas + CO ₂ | Mixed gas + CO ₂ | Mixed gas + CO ₂ |
| Welding wires | | | | |
| Steel ø in mm | 0.6 – 1.2 | 0.6 – 1.2 | 0.6 – 1.6 | 0.6 – 1.6 |
| Alu ø in mm | 1.0 – 1.2 | 1.0 – 1.2 | 1.0 – 1.6 | 1.0 – 2.4 |
| CuSi ø in mm | 0.8 – 1.2 | 0.8 – 1.2 | 0.8 – 1.2 | 0.8 – 1.2 |
| Standard duty cycle measured according to German quality standard DIN EN 60974-1 at 40 °C ambient temperature | | | | |
| Current at 100 % duty cycle (40 °C) | 200 A | 250 A | 290 A | 370 A |
| Current at 60 % duty cycle (40 °C) | 250 A | 300 A | 350 A | 430 A |
| Duty cycle I max. (40 °C) | 45 % | 45 % | 45 % | 45 % |
| Machine | | | | |
| Mains voltage | 3 – 400 V | 3 – 400 V | 3 – 400 V | 3 – 400 V |
| Permitted mains tolerance | +/- 15 % | +/- 15 % | +/- 15 % | +/- 15 % |
| Mains fuse, delayed action | 32 A | 32 A | 32 A | 32 A |
| Dimensions in mm (L x W x H) | 880 x 400 x 755 | 880 x 490 x 855 | 880 x 490 x 855 | 880 x 490 x 855 |
| Weight (compact system, gas-cooled) | 51 kg | 60 kg | 64 kg | 73 kg |
| Extras | | | | |
| EN1090 / WPS booklet | ○ | ○ | ○ | ○ |

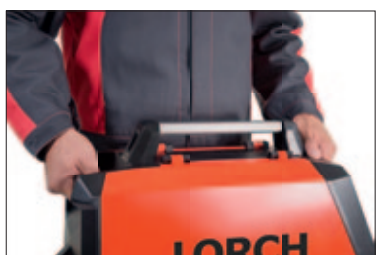
○ optional

The Lorch MF-08

The full-protection wire feeder case.

Robust, exceptionally stable and fully insulated.

The first thing you will notice when looking at Lorch's MF-08 is its design. We grant you that it looks different, and that is because it is different. We had a clear objective in mind when developing the MF-08: We wanted to design a wire feeder case suitable for use in almost every business and capable of handling nearly **every type of application**. We revisited even the smallest detail over and over again and developed it further. 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. At the very least since the introduction of the directive specifying that welding benches need to be grounded – but also based on experience from normal application situations – has it become apparent that every concealed cover and every deformed wire coil in a metal case carries the inherent risk of a ground fault including all of its consequences. A defect to the wire feeder will be the least of your problems. While handling work materials with care is helpful, genuine safety is only guaranteed by a fully protected case. The MF-08 – a **genuine safety advantage for every business**.



A perfect grip. For extended range and a maximum of comfort and mobility.

Especially when working on site or in hard-to-reach places, you will need a wire feeder case that you can take to your actual workplace. **When it comes to mobility, this wire feeder case stands out from other products thanks to many smart details. It is solidly mounted on the power source and can be swivelled easily.**

But while ordinary protective tool cases commonly offer only one handle option, thereby making it harder for the welder to hold them, the MF-08 offers **a whole range of convenient handle options**. For instance, you can conveniently detach it from the system without much effort by using the handles designated for this purpose. Its **low weight** is an extra bonus in this regard. These properties also make it the solution of choice **whenever you need to pass a case through a manhole**, climb up and down scaffolding, or require a case that you can hang from boom or position overhead in order to work unhindered and with ease. Details that you will come to appreciate while performing your most demanding jobs.



Contact hazard



Metal housing



Whether upright or horizontal –
easy to control in every position.

Every real-world 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.

Extremely robust & protected against falls.
More than is required by the standard.

Anyone who has ever taken a wire feeder case on site is familiar with the problem: **any case is prone to fall down at some point**. The standard requires: It must be capable of surviving a free fall from a height of 25 cm. Yes, honestly! Only that. However, heights are usually greater than that if the case falls out of the back of the van or from your hand while carrying it, leaving the case damaged in most cases. The MF-08 is different. Its sturdy body made of resistant special plastic reinforced with glass fibres is exceptionally light-weight, yet extremely rugged at the same time. Since Lorch incorporated **top crash protection**, the housing and its innards will usually remain intact. The MF-08 is designed in such a way that the body of the case will remain undamaged even if dropped from a height of 60 cm with the wire spool inserted. The only component that may break is the wire mandrel. And, this component can be replaced in no time at all. This is first-rate protection as we define it today.

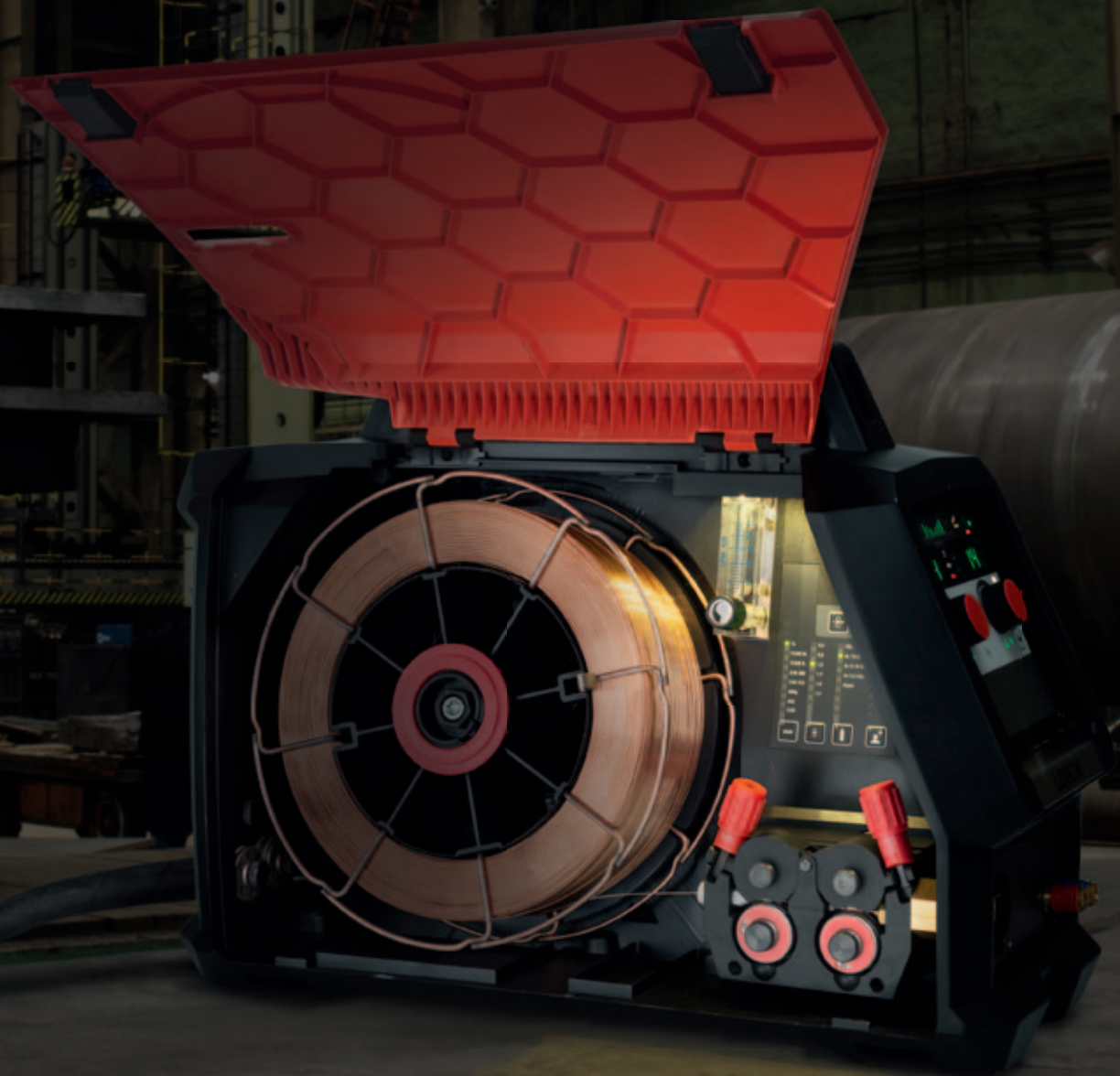


Full-protection wire feeder MF-08

Fully insulated

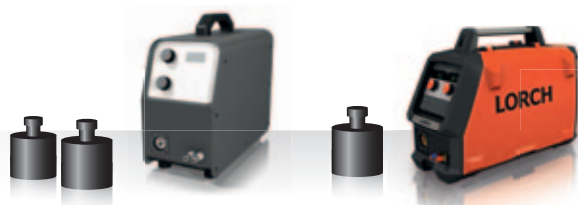
We are bringing light into darkness.

Progress can be so simple at times. A wire feed compartment with integrated lighting. This makes changing the wire a breeze even in poor light conditions.



Surprisingly simple – **bothside accessibility.**

An important aspect in terms of a wire feeder case's suitability for everyday use is the ease with which you can insert the wire reel. At the same time, this level of convenience poses a real challenge for the development of a **compact case that is suitable for use in manholes**. There are a number of details and special features in the design of the MF-08 that guarantee exceptional ease of use when you need to change wire reels. These include, for instance, a **slightly slanted wire reel** and side covers that swing open and lock into place, thereby allowing easy access to the compartment especially in the top portion of the unit. Since it is also possible to open the other side of the feeder case, the electronic system and the motor are protected and covered, you get convenient access to all connections of the hose package. The locking mechanism and the strain relief device of the inter-connection hose package are designed in such a way that the hose package can be replaced by the welder himself or, if necessary, be transported separately from the case without the need to enter a technically sensitive area or an area that may only be opened by trained personnel.



A genuine lightweight in its class.
Only 10.6 kg net weight.

Especially when working on site, you will have to go long distances every day while carrying your equipment. Welding large workpieces also often requires that you move your wire feeder case. It goes without saying that each additional kilogram adds to the burden. When compared to ordinary wire feeder cases made of metal, which often easily weigh in at 15 kg or more even without the wire reel, our Lorch MF-08 distinguishes itself with its low weight. Thanks to its own low weight of merely 10.6 kg, the case is easy to transport, yet sturdy enough to take a beating.

Accessories



Undercarriage kit
for upright position



Undercarriage kit
for horizontal position



Protection cage
with all-around tube-frame



Protection skids
suitable for work on
heated surfaces



MIG-MAG-Full-protection wire feeder **MF-08**

| | |
|------------------------------|--|
| Feeder speed | 2.0 – 25,0 m/min |
| Drive/ feeder | 4-roll/ tacho-regulated motor/ digital speed feedback |
| Suitable for use in manholes | starting from 42 cm oval (without handle) |
| Fully insulated | ● |
| Flowmeter gas | ○ |
| Dimensions in mm (L x W x H) | 575 x 245 x 434 (380*) |
| Weight (net) | 10.6 kg |

○ optional * Height without handle

Lorch MicorMIG.

The MIG-MAG all-rounder for any application.

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