

WELDING CARRIAGES

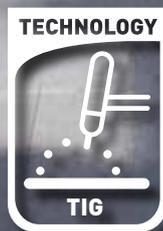
Longitudinal welding has never been more flexible



F100LA



F100TK



LONGITUDINAL WELDING AND CUTTING IN MOBILE FORM!

The fully automated welding and cutting of longitudinal seams is a basic requirement for efficient production in many industries. However, often work pieces are processed in locations where stationary welding and cutting technology is not feasible, and the investment in fully automated systems is unrealistic due to lack of production numbers and long investment return times.

Merkle has developed the mobile welding and cutting carriages F100LA and F100TK, allowing the efficient automatic processing of long H-profiles, plates, longitudinal seams or overlaps.

The mobile carriages are, due to the low investment costs, ideally suited for small series production and thanks to their compact dimensions perfectly suitable for components of one meter in length or more.



Perfect seam tracking with the carriage F100LA with the Merkle laser LA-200. Maximum flexibility for butt and fillet welds.

The flexible and robust carriages can be used for MIG/MAG, TIG and Plasma welding as well as for cutting work. The Merkle carriages can be equipped with the appropriate torches depending on the welding process or cutting job.

The carriages are equipped with 4 driven solid rubber wheels and a steerable axle. This ensures that it remains exactly in the pre-determined track. The speed is continuously adjustable. **The devices work completely without rails, so that the time-consuming assembly and alignment of guide rails is not needed.** Due to the motor being equipped with a tachometer a constant speed is ensured even under changing loads. The robust aluminum housing has a high mechanical load for rough conditions on the construction site or in factory halls. Two transport handles ensure the mobility of the carriages.

The carriage F100LA has an optical laser scanning tracking system, the F100TK is equipped with a mechanical tracer pin. Quick-adjustable torch holders provide a maximum flexibility in positioning the torch.

As an option, a magnetic adhesion device for slope movement can be installed. A wireless remote control can be integrated [option].

The welding control of the carriages F100LA and F100TK is operated by the MERKLE HighPULSE series, which also provides the power and gas supply.



Fillet and butt welds can be performed via the mechanical tracer sensor of the F100TK as an alternative to the laser system. (For butt welds a weld preparation of min. 4 mm and 60° is required.)



Small deviations and tolerances are compensated quickly and precisely via motor cross slides. Larger deviations are controlled by the steerable front axle of the carriages.



The control of the carriages during the welding operation is done automatically through the power source. The setting up and control of the welding is done via an easy-to-use control panel.



Technical Data:

Voltage:	42 V/AC, 50/60 Hz
Contin. / maximum current:	1.0 A/5.9 A
Cooling:	AF
Travel speed:	0.1-5.5 m/min, continuous regulation
Controls:	Forward, Reverse, Laser on/off (F100LA), seam tracking, simulation, starting position, potentiometer for travel speed
Weight, dimensions L x W x H:	approx. 68 kg, approx. 860 x 740 x 470 mm
Drive torque:	170 N
Torch positioning:	vertikal: 80 mm horizontal: 70 mm
Drive system:	heat resistant wheels (quad drive) with optional magnetic adhesion device
Plug (10 pin):	for Merkle MRC20 and additional signals: speed, welding on/off, emergency stop

Product advantages:

- Equipped with optical laser sensor (F100LA) or mechanical tracer pin tracking (F100TK)
- Free running - without guide rails!
- Maximum flexibility due to numerous adjustment options in all operating axis
- With 4 heat resistant rubber wheels and protected chassis
- Constant drive controlled via tacho generator
- Continuous speed adjustment 0.1-5.5 m/min.
- Perfect for components of one meter in length or more



Quick set up by practical adjustment lever.



A magnet can be installed as an option, which ensures the necessary magnetic adhesion when moving on slight slopes.



The optional wireless remote control is recommended for ergonomic work conditions.



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Welcome to the Merkle World of Welding.

PRODUKTPROGRAMM

- MIG/MAG Welding Units
- Synergic Pulse Welding Units
- TIG Welding Units
- MMA/Stick Electrode Welding Units
- Plasma Welding and Cutting Units
- Welding and Cutting Torches
- Turntables, Booms, Parallel/Rotation Banks and Roller Drive Units
- Complete Automation Systems and components
- Merkle Robotics



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