

MHW-FEx manual welding torches

Torch-integrated
welding fume extraction:
No fumes, only clean air!

CLOOS

Weld your way.



Safe and effective extraction of welding fumes directly at the source

The requirements for occupational health and safety measures and safety technology are also continuously increasing in welding technology. The TRGS 528 (Technical Regulations for Hazardous Substances) require welding fumes and harmful substances to be extracted at the point of origin in order to comply with the workplace limit values (AGW) for hazardous substances. In order to protect your employees from harmful welding fumes, efficient solutions for welding fume extraction are necessary. The torch extraction system offers a safe and effective extraction of welding fumes directly at the source. Up to 95 percent of the fume is extracted directly during welding at the point of origin near the arc. Your employees benefit from clean air and a better working environment.



without extraction

With welding fume extraction:

- Comply with the occupational exposure limit value according to the Hazardous Substances Ordinance (GefStoffV).
- Protect your employees from harmful welding fumes.
- Profit from clean air and a better working environment.



- **Capture of up to 95 percent of the fume**
- **Annular exhaust air flow around the gas nozzle:**
 - Maintenance of shielding gas coverage of the weld pool
 - Non-influencing of the weld seam quality
 - Functionality even in the case of out-of-position welding
- **Suction slots integrated in the gas nozzle:**
 - Suction power independent of welding direction
 - Hardly any influence on torch weight
- **Slim and compact design for optimum accessibility**
- **Robust connection:**
 - Screwed-on gas nozzle between metal neck and nozzle
 - Designed for the heaviest loads in industrial environments



Robust torches for manual welding

The right torch for every requirement!

The CLOOS welding torches are as versatile as the welding power sources. We have the suitable welding torch for each capacity class and for every requirement of manual welding.

The robust MHW manual welding torches are available in the capacity classes of 250 A and 300 A (gas-cooled) as well as 500 A (water-cooled). The manual welding torches convince by an excellent cooling due to the highly efficient water circuit in the torch body. This allows a very long service life of the consumables. All capacity classes have the same ergonomic handle and are slip-proof in the hand of the welder.

- **Excellent quality:** Original accessories for faultless functionality
- **Long service life:** Reliable technology guarantees economic operation
- **Highest availability:** Quick delivery due to global service network



The robust connection between metal neck and gas/fume extraction nozzle

The new nozzle holder provides a robust connection between metal neck and nozzle by means of a thread and is thus designed for the heaviest loads in an industrial environment.

Unique nozzle design for optimum performance and durability

The nozzle design is unique to achieve the best results. The openings and the wall thickness guarantee optimum operation and best performance.

Ergonomic handle with ball joint: 30° angle and 360° rotatable.

The ball joint allows the 30° vertical angular movement combined with 360° swivel movement - both with a stop - for excellent handling. Cables and hoses do not twist and thus remain leak- and break-free.

Manual welding torches	MHG-FEx-250	MHG-FEx-300	MHW-FEx-320	MHW-FEx-500
Type of cooling	Gas-cooled		Liquid-cooled	
Capacity with mixed gas	250 A	300 A	320 A	500 A
Capacity with CO ₂	280 A	320 A	360 A	550 A
Duty cycle	100%	100%	100%	100%
Wire thicknesses	0.8-1.2 mm	0.8-1.6 mm	0.8-1.6 mm	0.8-1.6 mm
Equipped for wire	1.0 mm	1.0 mm	1.0 mm	1.2 mm
Bending angle	45°	45°	45°	45°
Length cable assembly	3 m, 4 m, 5 m	3 m, 4 m, 5 m	3 m, 4 m, 5 m	3 m, 4 m, 5 m
Connection	EURO	EURO	EURO	EURO

Manual welding torches MHG- and MHW-FEx Eco/Master/Premium: The right torch for every requirement!



MHW-FEx Eco

Overview of your advantages:

- **Optimum gas coverage at the most compact design:** Good accessibility also in narrow components
- **Ergonomic handle:** Optimum handling and minimised strain on the wrists
- **High cooling capacity due to efficient water flow:** Maximum service life



MHW-FEx Master

Additional advantages compared to the Eco version:

- **Two-touch torch for up/down function:** Capacity adjustment, fine adjustment or Job switching before and during welding
- **Ergonomic triggers:** Perfectly adjusted pressure point of the triggers for easy adjustment during welding even when wearing gloves.



MHW-FEx Premium

Additional advantages compared to the Eco and Master version:

- **4-touch torch with LED display:** Call and adjustment of all welding-relevant values
- **Individual parameter adaptation:** Adjustment of two parameters during welding and up to ten freely configurable setting parameters
- **Texts and symbols in the display:** Better understandability for the welder
- **Freely configurable trigger combinations:** For a maximum user-friendliness

QN-CL-FEx-100 extraction and filter unit

The compact and powerful QN-CL-FEx high-vacuum extraction and filter unit is specially designed for operation with the MHG/MHW-Fex manual welding torches as well as the MRW-Fex robot welding torches. The integrated filter has the W3 approval for all weldable materials and is cleaned automatically. Frequent, time-consuming filter changes are no longer necessary and downtimes are avoided. The built-in continuous-run motor enables 24/7 operation of the unit - a perfect prerequisite for use in an industrial environment and in a robot system.



- **W3 approval:** Can be used for all weldable materials
- **Long filter service life:** 5 m² filter area with automatic cleaning for minimum service effort
- **Industrial standard:** High availability due to frequency-controlled continuous-run motor and side channel compressor
- **Maximum efficiency:** Low energy consumption and long filter service life considerably reduce the operating costs.

FEx100/Fex200	FEx-100	FEx-200
Dimensions (with/without Räder)	660 x 410 x 560/640 mm	810 x 530 x 690/790 mm
Implementation	Mobile on four wheels, two of which rotate with locking device	
Electrical voltage supply	220...240 V / 50...60 Hz	220...240 V / 50...60 Hz
Motor power [kW]	1.5	3
Maximum volume flow [m ³ h] free blowing	180	250
Maximum volume flow, effective [m ³ h]	65	65
Maximum vacuum [Pa]	36000	38000
Separation rate [%]	IFA > 99.8%	IFA > 99.8%
Active filter surface [m ²]	5	5
Operating temperature	0...50 °C	0...50 °C
Max. DC	100%	100%
Admission	51 mm	51 mm Ø x2
Weight [kg]	45	58
Filter method	Disposable filter	Disposable filter
Certification	CE and W3	CE and W3
Sound pressure level:		
According to DIN 45635-Part 1 at 1 m distance	< 65 db	< 65 db

Torch-integrated fume extraction also for automated and Cobot welding

Reduced investment volume with low operating costs

The measures required for collecting, extracting and filtering the fumes in robot systems are often associated with great effort. Large collection hoods with curtains, complex pipe systems and a large filter unit are necessary to extract and clean the polluted air. When extracting directly at the welding torch, the volume of polluted air is much smaller. By using the extraction welding torch system, users have to invest significantly less in extraction technology, air ducting system and filter device – with the same effect.



All over the world

Carl Cloos Schweisstechnik GmbH

Main office: Carl-Cloos-Strasse 1
Central warehouse: Carl-Cloos-Strasse 6
35708 Haiger
GERMANY

Telephone +49 (0)2773 85-0
Telefax +49 (0)2773 85-275
E-mail info@cloos.de
www.cloos.de

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