

# CO<sub>2</sub>-INSUFFLATOR

Made in Germany

MF



SYSTEM GAS HEATER (-H models)

**MF-43**  
**MF-30**  
**MF-20**  
**MF-15**

**MF-43-H**  
**MF-30-H**  
**MF-20-H**  
**MF-15-H**

optional:  
video data display

## MF-43 / 30 / 20 / 15 MF-43-H / 30-H / 20-H / 15-H

The MF-series is a complete new designed line of CO<sub>2</sub> insufflators with outstanding technical features. The units are controlled by microprocessors of the latest generation. Stable pressure balance in the abdomen is guaranteed by high gas flow performance and low insufflation pressure.

MF-series meets all your needs in minimal invasive surgery. Its unique feature is a **15, 20, 30 or 43 liter per minute gas insufflation** that delivers **maximum performance and highest level of patient safety**.

### ■ ADVANCE CONTINUOUS FLOW

The MF-series stands for ACF (**advanced continuous flow insufflation**) that means **no more disruptions** between gasflow and pressure reading phases.  
**No more guessing** - indicated gasflow is the actual gasflow.

### ■ SOFTWARE

**Software controlled pressure** release mechanism prevents dangerous pressure build up in the abdomen when using such apparatus as laser or argon beamers.

### ■ SAFETY

**Automatic self check**, activated **each time unit is switched on**, makes sure all electronic and pneumatic components are in **good running order**. This safety feature carries a **guarantee for the lifetime** of the unit. The **changeable sterile filter** prevents reflux of liquids and contamination of the gas way.

### ■ SYSTEM GAS HEATER

For reduction of post surgery problems the MF-series is available with a high efficient gas heater. The gas heater is preadjusted and works on a plug and play base full automatically. The heat exchanger can be autoclaved with the tube set.

### ■ VIDEO OSDD (optional)

The OSDD (On-Screen-Data-Display) gives the surgeon the possibility to display the important values on the video monitor of the endoscopic camera.

### ■ FLEXIBLE GAS SUPPLY

The MF-series can be used with gas bottles or central gas supply systems. The gas supply mode can be changed very easily by integrated software.

## MODELS

### max. gasflow

15 l/min	20 l/min	30 l/min	43 l/min
MF-15	MF-20	MF-30	MF-43

### with gas heater

MF-15-H	MF-20-H	MF-30-H	MF-43-H
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## OPTION

with OSDD - Video On-Screen-Data-Display

## CO<sub>2</sub>-INSUFFLATOR

### Technical Data

Insufflation pressure	0 - 30 mmHg		
Power supply	100 - 240 VAC, 50 - 60 Hz, 65 W		
Dimensions (WxHxD)	355 x 103 x 253 mm		
Weight	7 kg		
Gas	carbon dioxide (medical)		
Gas connection	UNF 7/16"		
Video connection: (only -V versions)	Input:	1 x FBAS (BNC)	1 x Y/C
	Output:	1 x FBAS (BNC)	1 x Y/C
Class / Type	2b / BF		
Manufactured and tested acc.	IEC 601-1 / CE <sub>0124</sub> EN 60601-1 93/42 ECC		

### Accessories

Sterile filter packages with 50, 250, 500 pcs.

Silicone tube set with ISO/LL-M or ISO/Large-Bore-M connection

High pressure tube UNF - UNF

### CO<sub>2</sub>-adapters to:

Pin Index  
ISO 5145

### Delivery contains

Insufflator  
Mains cable  
CO<sub>2</sub> high pressure tube UNF to German gas connection  
Wrench set: SW15 / SW30  
Sterile filter  
Standard silicone tube set (not -H versions)  
System gas heater with tube set (only -H versions)  
Video cable (only -V versions)  
User manual

