





## MasterFlux Smart Conscious sedation

The first cloud-based conscious sedation system with IOT technology





## World



TECI







## MasterFlux Smart The first 4.0 electronic conscious sedation system



VO-GAZ





## first!



100% Made in Italy

Tecno-Gaz leader in sedation for over 25 years has developed the Master Flux Smart, the first electronic conscious sedation system with advanced IOT connectivity, 100% Made in Tecno-Gaz.

## MasterFlux Smart. Wi-Fi connected. Unique in the world.





Master Flux Smart is the worldwide evolution of electronic sedation systems. A model that integrates the MasterFlux Plus range, ensuring that all users can choose the most suitable model for their needs.

Wi-Fi connection for easy interfacing in all situations







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(Option available in case of active aspiration connection to the aspiration of the chair)

On the MasterFlux Smart display it is possible to visualize the aspiration of the chair in liters per minute. In this way it is possible to regulate it by optimizing the flow breathed by the patient to make sedation even more effective, avoiding any dispersion of the exhaled gases into the environment.

N<sub>2</sub>O

Residual gas level displav

**CE** 0425



Unique in the world, it displays the gas remaining in the cylinders in minutes of use

## MasterFlux Smart. The first interconnected "electronic"

MasterFlux SMART is a sophisticated electronic and mechanical engineering project with a proportioning delivery system. The electronic method enables precise adjustment of the flows by simply turning a proportioning dial. The result is a high-precision, highly reliable and easy-to-use product, interconnected to the cloud for data management (IOT).



#### Wi-Fi connection





MasterFlux Smart is equipped with Wi-Fi connectivity for easy interfacing in all situations.

### Availability of data



MasterFlux Smart can save data and usage statistics both internally and remotely on cloud servers (can also be exported onto USB). Transfer of data on USB is possible as back up in case of an Internet connection failure. Data filing both via wi fi or USB is possible only in case an IOT contract has been activated.



## Simple structure Intuitive controls



## Advanced operator and patient profiling



You can choose to connect it to the cloud for management and consultation of patient flow data on Tecno-Gaz servers, or use it independently in non-connected mode

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Patient list

Cylinder autonomy

Patient statistics



## MasterFlux Smart

Conscious sedation is a technique that is widely used in dentistry. This is due to the huge commitment of Tecno-Gaz, which has been developing and manufacturing conscious sedation systems for over 30 years. Furthermore, Tecno-Gaz has long been committed to an ongoing, extensive training and information campaign, involving thousands of doctors in Italy and around the world.



#### **Calming feature**

MasterFlux Smart is designed to create a pleasant, calm experience. The cylinders are fully concealed inside the device. This avoids creating a negative visual impact on patients.



## MasterFlux Smart Why sedation is essential

Conscious sedation is essential in clinics where surgery/implantology is carried out, and where children, difficult or disabled patients are treated. This treatment is also of great help to the periodontologist, hygienist, or in prosthetics and when taking impressions.

Conscious sedation is now a service that all practices should offer. It is an indispensable aid in all types of surgical and implantological procedures, as well as a system that helps patients deal with dental treatment calmly and with maximum cooperation. Conscious sedation is also a technique that helps practitioners work in the most effective way, especially in cases involving difficult patients, for example children, patients with phobias, disabilities etc.







#### Implantology and surgery

Implantological and dental operations are often lengthy procedures. Conscious sedation removes the perception of time, which results in increased patient cooperation and therefore makes the work of the dentist easier, quicker and less stressful.







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#### **Pediatric dentistry**

Pediatric dentistry is perhaps the branch that gains the most benefit from inhaled conscious sedation. This is considered the safest, most effective method of conscious sedation in paediatric dentistry, and is therefore the preferred conscious sedation technique used in the dental clinic.

#### **Patients with phobias**

Fear of the dentist in adult patients is one of the main reasons why patients neglect their oral health. Conscious sedation helps patients undergo dental treatment by reducing anxiety and fear. This makes the dental appointment more pleasant and relaxing.







#### Patients with special needs

These are patients with systemic diseases, severe physical or mental disabilities, or multiple disorders. They are patients who therefore require special precautions, so that the dental treatment can be carried out in a way that is a comfortable for them and calm for the dentist. Sedation is a particularly good treatment for putting these patients at ease.

# Advanced functionality and ease of use

MasterFlux Smart is equipped with a number of safety features, both on the device itself and on the delivery circuits. It is easy to use and allows the professional to work in complete peace of mind.



Nitrous oxide supply shutdown

When the pressure in the Oxygen cylinder falls to zero (no Oxygen), the nitrous oxide gas supply is automatically switched off.

#### Non-return valve



A special non-return valve prevents the outgoing gas from re-entering the circuit. There is also a special device that allows the patient to breathe atmospheric air in the event of a gas failure.

#### **Pressure reducers**



The pressure reducers that connect the flow meter box and the cylinders have been mounted inside the device so that they are not visible to the patient. The assembly has been safely designed to avoid any interchange between the reducers of the two gases, both to the cylinder and to the box flow meter.

#### Minimum Oxygen concentration



Guaranteed minimum Oxygen concentration in the gas mixture supply, as there is always at least 30% Oxygen available; this guards against the risk of hypoxia and anoxia.

#### Automatic gas proportioner



The system has been designed to assure quick and easy administration of gas flow . By pressing the O<sub>2</sub> button, we quickly set the correct oxygen flow for the patient in liters per minute, depending on their breathing capacity. The N<sub>2</sub>O button allows you to adjust the % of nitrous oxide automatically ranging from 0% to 70%. The color display has been designed to allow a quick and easy reading of liters per minute and gas flows.



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## Smart power supply



Mains power supply with charger function



Battery powered for maximum portability (approximately 6 hours autonomy)



#### Delivery settings



Display of electronically controlled settings

#### Autonomy display

ster Flux Sma



Function for calculating and displaying remaining cylinder capacity in minutes

#### Exhaled gas management



Optimisation of intake flow-exhaled gas discharge flow (adjustable)

## MasterFlux Smart Simple and intuitive, just a...touch away!





100% IIII)

10 14

5 10 14

100% 💷 🗘

#### The following data are displayed during sedation:



Intuitive, easy to consult menu

When changing

the cylinder,

values in

Dog 8

I/min 15.9

counter reset

to find residual

minutes of use

ΩøR

Volume O<sub>2</sub>

Volume N<sub>2</sub>O

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Azzeramento bombole O2

Azzeramento bombole N<sub>2</sub>O Visualizzazione autonomia

Visualizzazione vacuum



01/09/2021 @15.30



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Base Line "Save" button displayed if value has not been previously set

**Total flow** (pressing on flow alternates display of individual flows)

**Cylinder autonomy** the value expressed in litres is converted into minutes during delivery

5 Flow of % N2O / O2



Remote control functionality for Service



% N2O / % O2

Bar

Delivery / Recording Red dot when recording session data

Aspiration of dental unit

If displayed, indicates flow in the event of active suction

% N2O / O2 Pressing alternates between O2 and N2O



Internet connection for recording data on Tecno-Gaz server and online consultation



## MasterFlux Smart the first sedation device with IOT











Patient statistics

#### REPORT



Tempo	Flusso [NI/min]	N <sub>2</sub> O [%]
+00:00	4,5 NI/min	0%
+00:10	5,5 NI/min	20%
+01:50	7,0 NI/min	40%
+3:50	6,5 NI/min	35%
+4:30	4,0 NI/min	40%
+10:40	6,0 NI/min	20%

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Call up statistics by name or date

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Patient personal data

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Percentages of

use and patient

statistics







## MasterFlux Smart Advantages of the Intelliflux system

With the Intelliflux system, the coupled circuit tubes can be placed above the patient's head, on the right or left side. This enables the dentist to work comfortably on the area to be treated, without the tubing getting in the way.

#### **Pleasant treatment**



The sedated patient has a pleasant experience, breathing through a mask that leaves no marks on the face. Total stability guaranteed by frontal support, elastic band and mask-to-headrest locking system.

#### **Maximum stability**



Extremely stable masks due to the rigid polycarbonate central body and soft silicone profile, providing stability and avoiding leakage.

#### **Operational ergonomics**



Perfectly suitable for working with 4 hands. The circuit junction is located above the patient's head and does not create any obstacles to treatment . It is suitable for all dental practices with a focus on surgery.

#### Minimum oxygen concentration



The perfect fit of the masks, which adapt to any facial shape, enable faster, more efficient conscious sedation. Rigid polycarbonate central body + soft silicone profile for maximum grip and stability.

#### No leakage into the environment





## Intelliflux System

## New generation circuit and masks



#### Safety



Intelliflux prevents gas leakage into the environment

#### Simplicity



Easy-to-install tubing with anti-stretch system

#### Practicality



Tubes do not get in the way when working with 4 hands

## Intelliflux System New generation circuit and masks





## Intelliflux System Accessories

+ Sterilisable

Masks suitable for all patients Autoclavable at 134°C. Minimum: 30 cycles

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**1-XS** 

Art. MF835ZMF



Art. MF836ZMF



Art. MF837ZMF



Art. MF838ZMF

+ Sterilisable

One size silicone frontal support and nasal profile in various sizes. Optional spare parts. Autoclavable at 134°C. Minimum: 30 cycles

**1 - XXS** Art. 2ZMFA0050 **2 - XS** Art. 2ZMFA0051 **3 - S** Art. 2ZMFA0052



Art. 2ZMFA0054

#### + Not sterilisable

Elastic band with plastic hooks Art. 2ZMFA0046

Mounting kit on dental unit Art. 3MEDT0007+12MFA0064









#### + Not sterilisable

Tube length 1.8 metres Art. 3MEDT0006

#### Sterilisable

Tube length 1.5 metres Autoclavable at 134°C. Minimum: 30 cycles Art. 3MEDT0018

#### Not sterilisable

Disposable 50-metre tube with pre-specified lengths Art. 3MEDT0019





## MasterFlux *Plus* or MasterFlux *Smart*? You choose the most suitable model for your clinic



MasterFlux Plus	MasterFlux Smart
~	~
×	~
×	~
~	~
Analog	Digital
×	×
×	~
~	~
×	~
~	×
	✓ × × Analog × ×



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**Dimensions - mm - LxHxP** 410 x 1230 x 590

Weight without cylinders 47 kg

Max. cylinder height 950 mm

**Cylinder diameter** 140 mm



#### Tecno-Gaz S.p.A.

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