

TECNO-GAZ NEWS

Information and opportunities
from the manufacturer to the user

Conscious sedation

New delivery System & New Masks



All rights reserved by Tecno-Gaz S.p.A. Changes in images or content may be made without prior notice. Tecno-Gaz S.p.A. is not liable for any damage resulting from incorrect or incomplete information reported in this document. The images used in this document are for illustrative purposes only.

FOCUSON

CED writes the 11/05/12 in a CED report:

Inhalation sedation utilizing nitrous oxide oxygen has been a primary technique in the management of patients' preoccupations and anxieties for more than 150 years and remains so today.

Page 2



Tecno-Gaz Presentation

The integrated Tecno-Gaz project.

Page 3



Sedative Analgesie

Master Flux Plus

The better the performance, the greater the patient's comfort.

Page 4



Sedative Analgesie

Master Flux Plus Electronic

Página 6



Circuit and masks IntelliFlux delivery system



Page 10 New Masks

Emergency management Life saving devices

The equipment with an AED is legitimately prescribed medical device and a professional supplement to dental practice.

Page 15



General Information on Conscious sedation



As many as 10 to 30% of adults and children may have some form of fear or anxiety related to dental treatment.

There is substantial evidence that these patients will benefit from conscious sedation with nitrous oxide (N₂O) and that this form of sedation is extremely safe and efficient in the trained "dental practitioner's hands."

Conscious Sedation can be defined as: "A technique in which the use of a drug or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which verbal contact with the patient is maintained throughout the period of sedation."



CED writes the 11/05/12 in a CED report:

Inhalation sedation utilizing nitrous oxide and oxygen has been a primary technique in the management of patients' preoccupations and anxieties for more than 150 years and remains so today. Nitrous oxide inhalation sedation, when it is supported by behavior management techniques is efficacious for children and adults. A 2008 Cochrane review reported favorable changes in behavior or anxiety when N₂O was used. This has been described as the "standard technique" for pediatric dentistry (NICE 2010).

The technique is safe, valuable and effective for dental procedures and will allow the majority of apprehensive dental patients to be successfully sedated and treated in a much more comfortable and stress-free environment.

Administered properly, by accredited dental practitioners with well-maintained equipment and appropriately trained assistants, the technique has an extremely high success rate and must be part of dental equipment as a fundamental instrument for the management of pain and anxiety.

How many patients are
afraid or anxious about
dental treatment?

10% 
30% 



Tecno-Gaz Presentation



- + Tecno-Gaz **established in 1979**
- + Based in Parma, Italy
- + Masterflux produced **since 1995**
- + Sole manufacturer of conscious sedation devices in Europe
- + **12,000** units installed all over the world
- + **Universities: Master Flux Plus used and improved in the University of**

Parma, LKH - Univ, Klinikum Graz, Austria, Charité Universitätsmedizin Berlin, Universidad Internacional de Cataluña (UIC), Universidades de Barcelona, Facultad de Odontología de Murcia, Complutense de Madrid, Università di Torino, Ancona, Bologna, Bolzano, Roma, Napoli, Catania, Sassari, Poznan.

Tecno-Gaz project

Tecno-Gaz offers a range of solutions to handle, manage and expand the operations of your practice. Our solutions not only provide you with the single product, but include a range of services, skills and expertise.



Sedative Analgaesia *Masterflux Plus*

Conscious sedation

The controlled administration of oxygen and nitrous oxide by inhalation induces a relaxed feeling and reduces emotional stress. Anxiety and the perception of pain are reduced, increasing the amenability of the patient and facilitating collaboration with the practitioner, while maintaining unaltered the vital reflexes.

Why conscious sedation?

Complex operations and increased invasiveness have significantly lengthened the sessions and require a new approach to the patient. With conscious sedation, it is possible to decrease surgical stress, increase patient compliance and, consequently, productivity.

Master Flux Plus, the conscious sedation machine

Master Flux PLUS is the unique conscious sedation machine entirely researched and developed in Italy.

All parts are manufactured by Tecno-Gaz and are subject to scrupulous individual inspection. To give the machine a positive visual and psychological impact on the patient, the components are enclosed in an elegant unit which contains oxygen and nitrous oxide bottles with relative reducers and attachments.



Safety devices

Minimum oxygen concentration

There is always a percentage of **30% oxygen present**, thereby safeguarding against the risk of HYPOXIA and ANOXIA.

N₂O cut-off

Cuts off the N₂O flow **when the O₂ pressure is zero** (no oxygen)

O₂ Emergency

When we press the O₂ device, we cut off the flow of N₂O, **delivering 100% oxygen both to the control balloon and to the patient undergoing treatment.**

Anti-expired gas valve

A special no return valve prevents expired gases from being recycled in the circuit. Additionally, a special device enables the patient to breathe ambient air in the event of a gas failure.

Automatic flow control

The system has been designed to make flow administration quick and easy. Turning the O₂ knob, **1** we set the flow required by the patient in litres per minute, depending on his/her respiratory volume. The special adjustment knob **3** enables the percentage of nitrous oxide delivered to be automatically varied from 0 to 70%.

The columns indicating the flows have been designed for fast and easy reading.

The couplings have been fitted on the back of the flow control box and their attachments are physically different to safeguard against the risk of inverting the tubes for the two gases. Yet another precaution to guarantee safety in the use of the machine.



Master Flux Plus Electronic



- ⊕ **Electronic system** for conscious sedation
- ⊕ **Graphic interface** with colour display
- ⊕ **Mains and battery** (4 h) power supply
- ⊕ **Safety systems** with **sound and visual alarms**



Safety devices

The MF ELECTRONIC flowmeter box is a sophisticated electronic engineering project equipped with a proportioner-driven delivery system. An electronic method has been chosen, in which the flow can be precisely adjusted with the touch of a button. This has allowed us to obtain a high precision product which is very reliable and simple to use. Master Flux Plus Electronic is easy to use. Its technical features make it extremely adaptable. Its effective safety devices avoid every possibility of error, and therefore any negative consequences for the patient. The displayed graphic contents are easy to read.



1 N₂O cut-off

Cuts off the N₂O flow when the O₂ pressure is zero (no oxygen).

2 Anti-expired gas

A special valve prevents expired gases from being recycled in the circuit. Additionally, a special device enables the patient to breathe ambient air in the event of a gas failure.

3 Automatic flow control

- The system has been designed to make the flow administration quick and easy. Turning the O₂ knob, we set flow required by the patient in litres per minute, depending on his/her respiratory volume. The special adjustment knob enables the percentage of nitrous oxide delivered to be automatically varied from 0 to 70%.
- The display interface has been designed to ensure a fast read of the gases flow rates.

Master Flux Plus Electronic

Nitrous oxide percentage

Patient Preset Adult/Paediatric

Oxygen percentage



Battery charge indicator

Total mixture Litres per minute

Nitrous oxide Litres per minute

Oxygen Litres per minute

Simple menu navigation with a touch of a button



Minimum oxygen concentration There is always a percentage of 30% oxygen present, thereby safeguarding against the risk of hypoxia and anoxia.

The pressure reducers connecting the flowmeter box to the cylinders are mounted inside the cabinet, out of the sight of the patient; the mounting design is safe with no risk of exchanging the two gas reducers to both the cylinder, and to the flowmeter box.



Portable, with
4-hour batteries



Preset adult patient
settings

Totally safe



Preset paediatric
patient settings

Completely
configurable



Oxygen depletion warning
N₂O depletion warning



Possibility to record new patients
with progressive numbers and to
retrieve performance data (time
and amount) subsequently



IntelliFlux

Delivery System & Masks



New

**masks children
and adolescents**

Size
1-4



Workspace

The IntelliFlux masks can be adjusted to 180° to work on the lateral part of the mouth and guarantee the ideal access to the work space of the dentist.



Patient Comfort



Perfect sealing for less ambient contamination

LATEX
FREE

Silicone profile suitable for any type of face. Leaves no marks, gives great comfort, and reduces N₂O emissions in the environment

Support area for the forehead of the patient



Gas outlet with backflow valves

Gas inlet with backflow valves



Ease of tube replacement



New easy-breathe membranes



Faster conscious sedation time



Mounting kit for dental chair



The New Circuit

Ergonomics

- Perfectly suitable for 4-hand work.
- Circuits tubes located above the patient's head avoiding obstacles to the treatment.
- Can be moved in all positions.



Pleasant treatment

- The patient is sedated, enjoying a peaceful experience, breathing through a mask that will leave no marks on his face.
- The frontal holder and the rubber elastic band ensure perfect stability.



Fast and efficient conscious sedation

- Perfectly sealing mask adapting to all face shapes and curves for a faster and more efficient sedation treatment.



No gas dispersion in dental clinic environment

- Many particular specifications contribute to prevent dispersion such as:
- Backflow valve.
- Adaptable connector to dental unit aspirators.
- New easy-breathe membrane.
- Face-adaptable, single use silicone shape.

The New Masks



1
(XXS)



2
(XS)



3
(S)



4
(M)



Advantages of new masks and circuits:

- Control of gas dispersion into the clinical environment
- Perfect adaptation to any face shape
- Excellent comfort experience for patient and operator

Today, with new adaptable circuits and masks there is **better control and performance**, during mixed gas delivery.



Prevent Cross-Infections

Best practice modalities

Tecno-Gaz, a leader in sterilization, gives information on the best practice in the usage of sedation masks to prevent cross contamination as recommended by European regulations: EN 13060, 17665-1, EN556-1, and the Spaulding classification. Spaulding defines the criticality (critical, semi-critical or not critical) of instruments and objects used during treatment, depending on the use and the possible contact with patient skin or gum and tissues.

What is **disposable**, and what can be **sterilized**?

Neck strap

Disposable



Tubes

Tubes are defined as non critical. However, Tecno-Gaz proposes 3 types of tubes:

- Single use (optional)
- Sterilizable at 121°C (Standard)
- Sterilizable at 134°C (optional)



LATEX
FREE



Masks

Masks are defined as semi-critical. They can be disinfected or sterilized at 134° C

Rubber parts

Sterilizable at 134° C.
Also exists in single use lots.

Accessories for Master Flux Plus

NEW



Mask

1 (XXS)
Art. No. MF835ZMF

NEW



Mask

2 (XS)
Art. No. MF836ZMF

NEW



Mask

3 (S)
Art. No. MF837ZMF

NEW



Mask

4 (M)
Art. No. MF838ZMF

One-size silicone head cushion and silicone mask pads in various sizes

Autoclavable at 134°C. Minimum: 30 cycles



1 (XXS)
Art. No. 2ZMFA0050

2 (XS)
Art. No. 2ZMFA0051

3 (S)
Art. No. 2ZMFA0052

4 (M)
Art. No. 2ZMFA0054

Holding strap with Plastic hook

Art. No. 2ZMFA0046



Mounting kit for dental chair

Art. No. 3MEDT0007+1ZMFA0064



Breathing balloon

Art. No. 3MEDN0001



Circuit tube

Tube length: 1.8 mt.
Not autoclavable

Art. No. 3MEDT0006

Circuit tube

Tube length: 1.8 mt.
Autoclavable 134°C. Minimum: 30 cycles

Art. No. 3MEDT0018

Circuit tube

Tube length: 50 m
Single use

Art. No. 3MEDT0019



Resuscitator balloon Master Flux Plus

for adults, autoclavable with double balloon

Art. No. 2000-R2



Resuscitator balloon Master Flux Plus

for children, autoclavable with double balloon

Art. No. 2100-R2



Service/Guarantee/Normative

Guarantee duration:
2 years legal guarantee



**CE regulation
and normatives:**
93/42 EEC



**Product
classification:**
Class II^a medical
product



Service proposal



**In Italy or at the local
distributor workshop**

Get more details on our service policy
sending an email to: cme2@tecnogaz.com



**Service: spare
parts and repairs
ensured by the local
authorized dealer**

Obtain your dealer contact by sending
an email to: cmel@tecnogaz.com



First Aid – the life-saving device

Oxygenation

VITAL TEST is a professional pulse oximeter designed for use in a medical environment. Simple and multi-functional, it can be supplied with a special support, designed to be fixed to a unit, wall or stand. This option allows for constant control of the instrument and permits it to be convenient for continuous use.

Main features

- wavelength or decimal reading of the values on the display
- adult-child reading selection
- on/off sound and adjustable volume
- SpO₂ min / max alarms
- Pr min / max alarms
- patient identification
- data reading

On request Vital Test can be supplied programmed with an interface to be connected to a computer, for the registration and printing of all parameters measured.

Vital Test

Pulse oximeter

Art. No. 11250



Defibrillation

Tecnoheart Plus enables safe defibrillation of heart muscle walls since it is equipped with sensors which are able to recognize heart failure due to arrhythmia, ventricular fibrillation and ventricular tachycardia.



Tecnoheart Plus

Semi-automatic defibrillator

Art. No. 11250

- 1 Cover:** the cover is designed to protect the action icons, patient mode button and charge button.
- 2 Status indicator:** indicates the status of the unit, the temperature and the battery level.
- 3 Paddle connector:** the paddle connector is used to connect the electrodes.
- 4 Action Icons:** the LED indicator flashes red under the corresponding action icon.
- 5 Patient mode switch:** once the user has identified the patient based on type, select patient mode (either adult or paediatric patient) using the mode switch.
- 6 Charge button:** once preparation for the electric discharge is completed, the current discharge button will flash. Press the button to deliver the discharge.
- 7 Sliding button:** the sliding button opens the cover, to turn on push the sliding button to the right.
- 8 SD card slot:** the SD card is required to save data and update AED firmware.
- 9 Infrared communication port:** the infrared communication port is used to communicate with the PC.

**THE UNIQUE
DEFIBRILLATOR WITH
EXCLUSIVE FEATURES!**



Anticipate, advise and guide the change.

WE MANUFACTURE THE FUTURE

*BUILDING THE FUTURE,
DAY AFTER DAY,
IDEA AFTER IDEA.*



HEADQUARTERS



AUTOCLAVE PRODUCTION LINE



Tecno-Gaz S.p.A.

Strada Cavalli, 4 - 43038 - Sala Baganza - Parma - Italia

Tel. +39 0521 83.80

Fax +39 0521 83.33.91

www.tecnogaz.com

Cap. Soc. € 280.000 i.v. C.F. e P.IVA/VAT IT00570950345

R.E.A. PR 138927 Iscr. Reg. Impr. PR 10061

www.tecnogaz.com

