

Istruzioni per l'uso
User Manual
Mode d'emploi
Instrucciones de uso
Bedienungsanleitung

Hydra EVO

Hydra EVO Plus

IT

EN

FR

ES

DE

DHET012 Rev_4

NEL CORSO DEL MANUALE IDENTIFICHEREMO COME:
IN THE MANUAL WE ARE IDENTIFYING AS FOLLOWS:
DANS LE MANUEL ON IDENTIFIERA COMME:
A LO LARGO DEL MANUAL EXPLICAREMOS COMO:
IM HANDBUCH IDENTIFIZIEREN WIR WIE:

HYDRA EVO → **MOD. 1**

HYDRA EVO PLUS → **MOD. 2**



Costruito da / The Manufacturer / Fabriqué par /
Fabricado por / Hersteller:

MEDILINE ITALIA s.r.l.

Via 8 marzo, 4
43025 Corte Tegge – Cavriago (R.E.)
ITALY

IT**IMPIEGO E DESTINAZIONE D'USO DELL'AUTOCLAVE**

L'autoclave deve essere utilizzata per sterilizzare gli strumenti presenti nello studio, seguendo le indicazioni del costruttore per la sterilizzazione di ogni strumento. Accertarsi della temperatura massima che gli strumenti possono sopportare.

L'autoclave può essere utilizzata nel campo dentale, medicale, estetico ed in generale in tutti i settori in cui si procede alla sterilizzazione degli strumenti e dei materiali.

Questo dispositivo è stato certificato per la sterilizzazione dei seguenti materiali:

SOLIDI NON IMBUSTATI:	4,0 kg / 1,0 kg per tray	MOD. 1
	4,8 kg / 1,2 kg per tray	MOD. 2

Valido solo per i paesi europei

EN**EMPLOYMENT AND USE DESTINATION OF THE AUTOCLAVE**

The autoclave must be used to sterilize the instruments that are present in the laboratory, by following the instruction of the manufacturer for the sterilization of each instruments. It is important to verify the maximum temperature that is bearable by each instruments.

This equipment can be used in the dental, medical, aesthetic fields and, generally, in all the fields where the sterilization of the instruments and materials is made

This device has been certified for the sterilization of the following materials:

UNWRAPPED SOLIDS:	4,0 kg / 1,0 kg for each tray	MOD. 1
	4,8 kg / 1,2 kg for each tray	MOD. 2

Valid for European countries only

FR**UTILISATION ET DESTINATION D'USAGE DE L'AUTOCLAVE**

L'autoclave doit être utilisée pour stérilisation des instruments dans le cabinet, suivant les indications du fabricant pour la stérilisation de chaque instrument. S'assurer de la température maximum que les instruments peuvent tolérer.

Cet appareil peut être utilisé dans le secteur dentaire, médical, esthétique et, en général, dans tous les secteurs où on pratique la stérilisation d'instruments et de matériels

Ce dispositif a été certifié pour la stérilisation des suivants instruments:

SOLIDES, PAS EMBALLES:	4,0 kg / 1,0 kg pour chaque plateau (tray)	MOD. 1
	4,8 kg / 1,2 kg pour chaque plateau (tray)	MOD. 2

Cette indication est valable seulement pour les pays européens.

ES**EMPLEO DE LA AUTOCLAVE**

El autoclave se utiliza para la esterilización de todos los instrumentos presentes en el estudio médico, según las indicaciones del constructor. Verifique la temperatura máxima que los instrumentos pueden soportar.

El autoclave puede ser utilizado en el sector dental, médico, estético y en general en todos los sectores donde se procede a la esterilización de instrumentos y materiales.

El autoclave es un dispositivo certificado para la esterilización de los siguientes materiales:

SOLIDOS NO ENSOBRADOS:	4,0 kg / 1,0 kg cada bandeja	MOD. 1
	4,8 kg / 1,2 kg cada bandeja	MOD. 2

Válido solamente para los países europeos.

DE**EMPLEO DE LA ANWENDUNG UND GEBRAUCHBESTIMMUNG VON GERÄT**

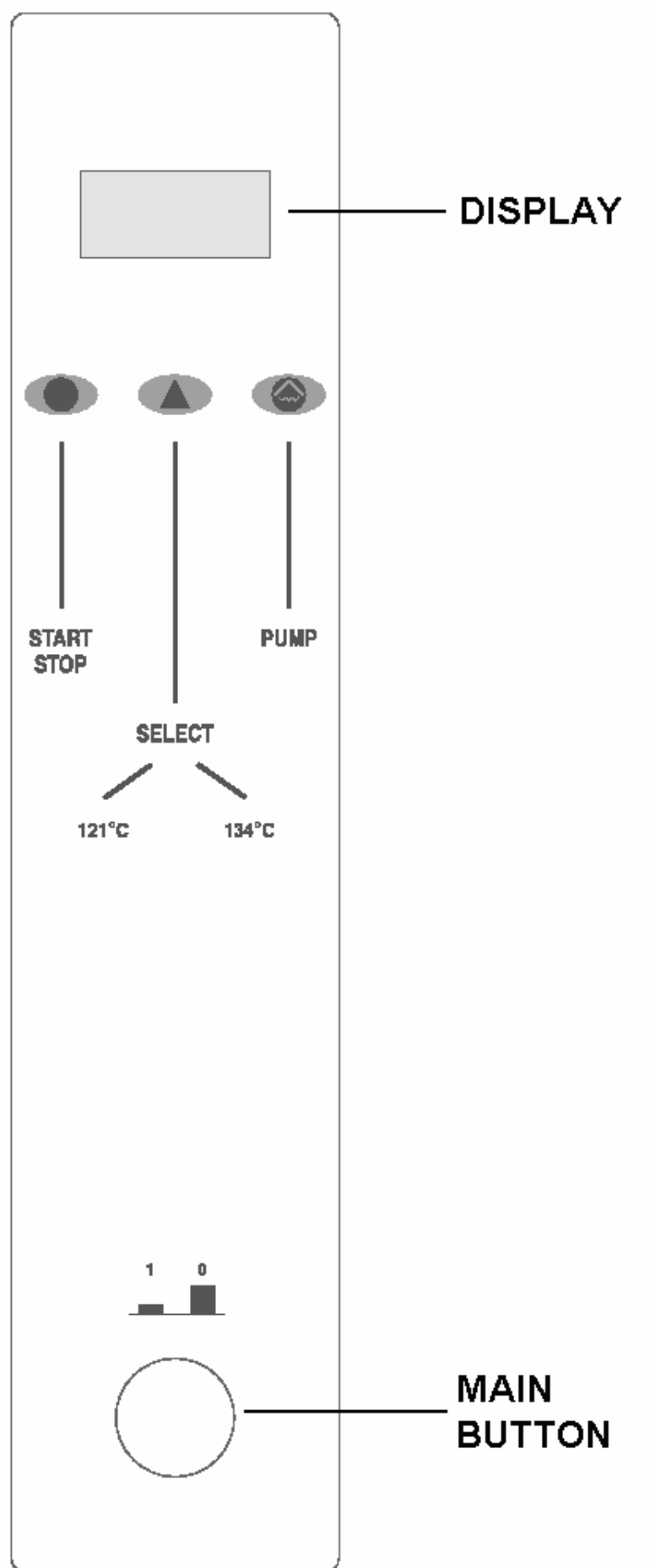
Der druckkessel soll gebraucht wersen, um die in der praxis vorwesenden gerate zu sterilisieren man den anweisungen des herstellers folgt, für die sterilisierung jedes gerats. Die hochste temperatur, die gerate tragen konnen, feststellen.

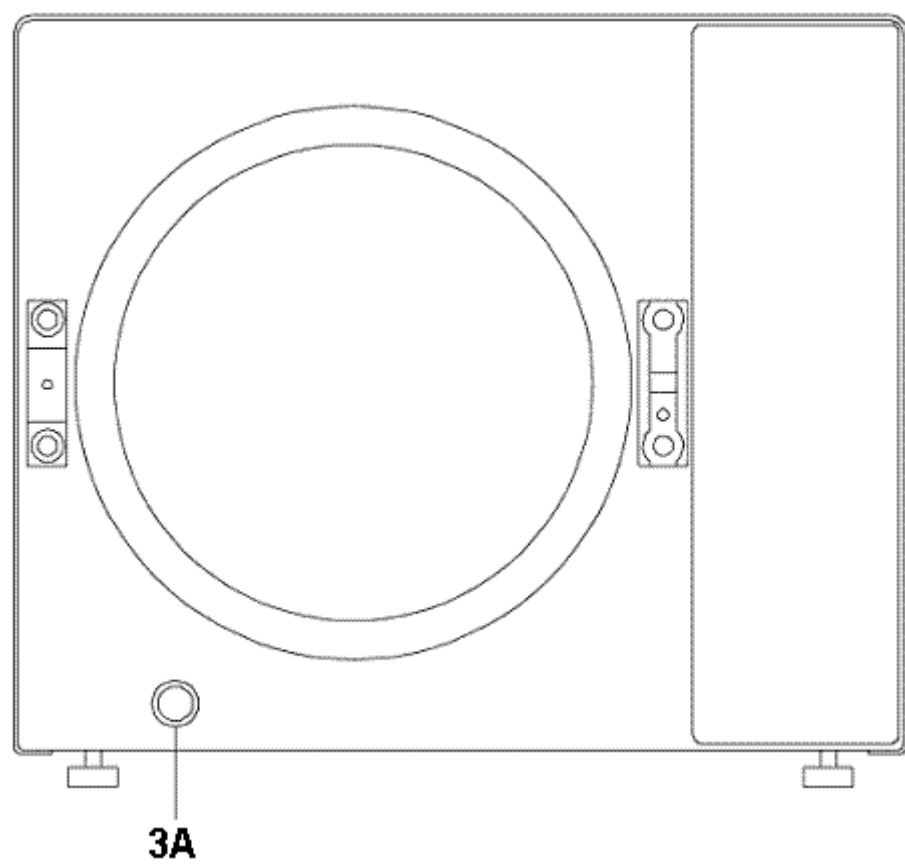
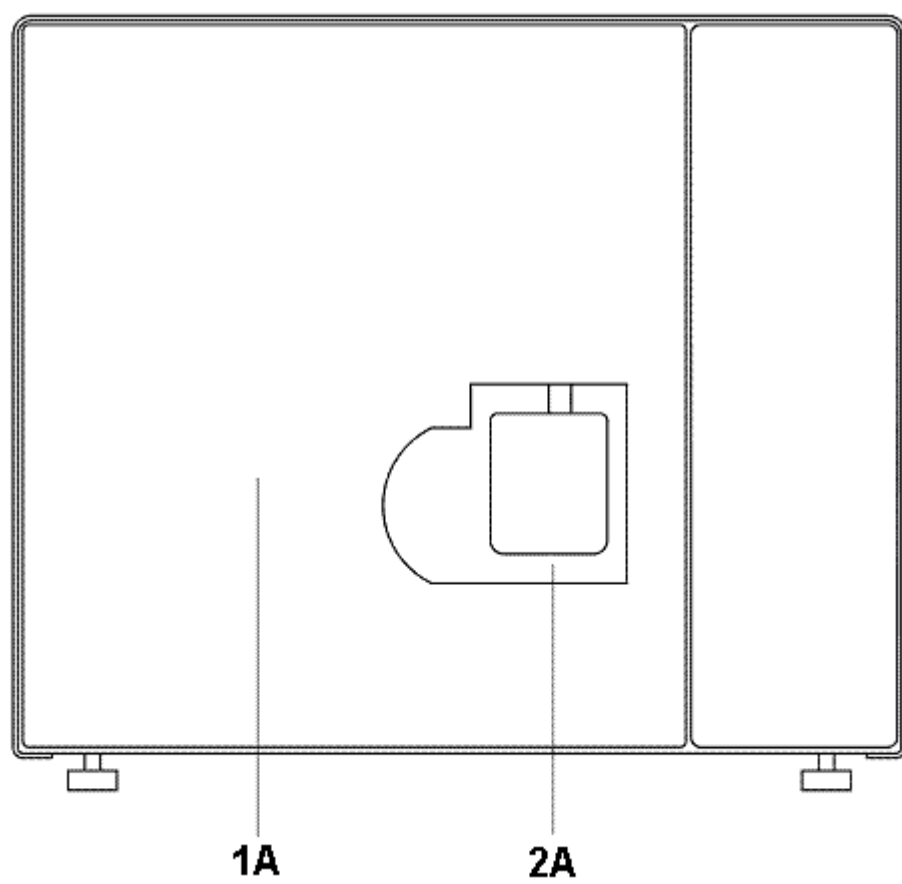
Der Autoklav kann im Zahn- Arzt- und Kosmetiksbereich und im Allgemeinen in allen Instruments- und Materialsterilisationsbereichen eingesetzt werden.

Das Gerät ist zertifiziert um die folgende Körper zu sterilisieren:

UNVERPACKTE FESTKÖRPER:	4,0 kg / 1,0 kg pro Tablette	MOD. 1
	4,8 kg / 1,2 kg pro Tablette	MOD. 2

Gültig nur für Europäische Ländern





	IT	EN	FR	ES	DE
MAIN BUTTON	Interruttore generale	Main switch	Interrupteur général	Interruptor general	Hauptschalter
PUMP	Pulsante CARICO ACQUA	WATER CHARGE push-button	Bouton REMPLISSAGE EAU	Botón DE CARGA AGUA	Drucktaste WASSEREINLAUF
START/STOP	Pulsante START/STOP	START/STOP push-button	Bouton START/STOP	Botón START/STOP	Taste START/STOP
SELECT	Pulsante SELEZIONE CICLO	CYCLE SELECTION push-button	Bouton SELECTION CYCLE	Led SELECCIÓN CICLO	PROGRAMMWÄH LSCHALTER
1A	Portello autoclave	Autoclave door	Porte autoclave	Ventanilla autoclave	Druckkesseltür
2A	Maniglia apertura portello	Door opening handle	Poignée d'ouverture porte	Manija de apertura puerta	Türöffnungsgriff
3A	Rubinetto di scarico acqua utilizzata	Discharge tap	Robinet de vidage	Valvula de desague	Auslabhahn

SICUREZZA E SIMBOLI PRESENTI SULL'APPARECCHIATURA
SYMBOLS AND SAFETY ON THE EQUIPMENT
SECURITE ET SYMBOLES PRESENT SUR L'APPAREIL
SEGURIDAD Y SÍMBOLOS PRESENTES EN EL APARATO
SICHERHEIT UND SYMBOLE AM GERÄT

IT

Norme di riferimento

Direttiva Bassa Tensione

Prove e verifiche di sicurezza elettrica

- Caratterizzazione energetica – Misura della potenza e della corrente assorbite (EN 61010-1 – Art. 5.1.3)
- Misura della corrente di dispersione alla temperatura di funzionamento (EN 61010-1 – Art. 6.5)
- Rigidità dielettrica alla temperatura di funzionamento (EN 61010-1 – Art. 6.8)
- Prova di continuità del circuito di protezione equipotenziale (EN 61010-1 – Art. 6.5)
- Resistenza all'umidità (EN 61010-1 – Art. 6.5)

Direttiva Compatibilità Elettromagnetica

Prove di emissione elettromagnetica

- Emissioni di disturbi elettromagnetici irradiati (EN 61326-1, EN 55011)
- Emissioni di disturbi elettromagnetici condotti (EN 61326-1, EN 55011: limiti della classe A)
- Emissioni di armoniche della corrente assorbita (EN 61000-3-2)
- Fluttuazioni di tensione e flicker (EN 61000-3-3)

Prove di suscettibilità elettromagnetica

- Immunità ai campi elettromagnetici irradiati (EN 61326-1, EN 61000-4-3)
- Immunità ai disturbi elettromagnetici condotti indotti da campi RF (EN 61326-1, EN 61000-4-6)
- Immunità alle scariche elettrostatiche (EN 61326-1, EN 61000-4-2)
- Immunità ai transistori elettrici veloci (EN 61326-1, EN 61000-4-4)
- Immunità ai transistori elettrici lenti (EN 61326-1, EN 61000-4-5)
- Immunità ai buchi di tensione (EN 61326-1, EN 61000-4-11)

EN

Standard references

Low Voltage Directive

Electrical safety test

- Power input and current (EN 61010-1 – Art. 5.1.3)
- Leakage current at operating temperature (EN 61010-1 – Art. 6.5)
- Electric strength at operating temperature (EN 61010-1 – Art. 6.8)
- Continuity of the protective equipotential circuit (EN 61010-1 – Art. 6.5)
- Moisture resistance (EN 61010-1 – Art. 6.5)

Electro-Magnetic Compatibility

Electromagnetic emission tests

- Radiated electromagnetic disturbance emissions (EN 61326-1, EN 55011)
- Conducted electromagnetic disturbance emissions (EN 61326-1, EN 55011: limiti della classe A)
- Current Harmonic distortion (EN 61000-3-2)
- Voltage fluctuation and flicker (EN 61000-3-3)

Electromagnetic susceptibility test

- Immunity to radiated RF electromagnetic fields (EN 61326-1, EN 61000-4-3)
- Immunity to conducted disturbances, induced by RF fields (EN 61326-1, EN 61000-4-6)
- Immunity to electrostatic discharges (ESD) (EN 61326-1, EN 61000-4-2)
- Immunity to electrical fast transients and burst (EN 61326-1, EN 61000-4-4)
- Immunity to Surge (EN 61326-1, EN 61000-4-5)
- Immunity to voltage DIPS and short interruptions (EN 61326-1, EN 61000-4-11)

FR**Normes de référence****Directive Basse Tension***Tests de sécurité électrique*

- Caractérisation énergétique – Mesure de la puissance et du courant absorbés (EN 61010-1 – Art. 5.1.3)
- Mesure du courant de dispersion à la température de fonctionnement (EN 61010-1 – Art. 6.5)
- Rigidité diélectrique à la température de fonctionnement (EN 61010-1 – Art. 6.8)
- Essai de continuité du circuit de protection équipotentiel (EN 61010-1 – Art. 6.5)
- Résistance à l'humidité (EN 61010-1 – Art. 6.5)

Directive Compatibilité Electromagnétique*Tests d'émission électromagnétique*

- Emissions de perturbations électromagnétiques rayonnées (EN 61326-1, EN 55011)
- Emissions de perturbations électromagnétiques conduites (EN 61326-1, EN 55011: limites de la classe A)
- Emissions d'harmoniques du courant absorbé (EN 61000-3-2)
- Fluctuations de tension et flickers (EN 61000-3-3)

Tests de susceptibilité électromagnétique

- Immunité aux champs électromagnétiques rayonnés (EN 61326-1, EN 61000-4-3)
- Immunité aux perturbations électromagnétiques conduites, induites par les champs radioélectriques (EN 61326-1, EN 61000-4-6)
- Immunité aux décharges électrostatiques (EN 61326-1, EN 61000-4-2)
- Immunité aux transitoires électriques rapides (EN 61326-1, EN 61000-4-4)
- Immunité aux transitoires électriques lents (EN 61326-1, EN 61000-4-5)
- Immunité aux creux de tension (EN 61326-1, EN 61000-4-11)

ES**Normas de referencia****Directiva de Baja Tensión***Pruebas y verificaciones de seguridad eléctrica*

- Caracterización energética – Medida de la potencia y de la corriente absorbidas (EN 61010-1 – Art. 5.1.3)
- Medida de la corriente de dispersión en temperatura de funcionamiento (EN 61010-1 – Art. 6.5)
- Rigidez dieléctrica en temperatura de funcionamiento (EN 61010-1 – Art. 6.8)
- Prueba de continuidad del circuito de protección equipotencial (EN 61010-1 – Art. 6.5)
- Resistencia a la humedad (EN 61010-1 – Art. 6.5)

Directiva Compatibilidad Electromagnética*Pruebas de emisión electromagnética*

- Emisiones de disturbios electromagnéticos irradiados (EN 61326-1, EN 55011)
- Emisiones de disturbios electromagnéticos conducidos (EN 61326-1, EN 55011: límites de la clase A)
- Emisiones de armónicas de la corriente absorbida (EN 61000-3-2)
- Fluctaciones de tensión y flickers (EN 61000-3-3)

Pruebas de susceptibilidad electromagnética

- Inmunidad a los campos electromagnéticos irradiados (EN 61326-1, EN 61000-4-3)
- Inmunidad a los disturbios electromagnéticos conducidos inducidos por campos RF (EN 61326-1, EN 61000-4-6)
- Inmunidad a las descargas electrostáticas (EN 61326-1, EN 61000-4-2)
- Inmunidad a los transitorios eléctricos rápidos (EN 61326-1, EN 61000-4-4)
- Inmunidad a los transitorios eléctricos lentos (EN 61326-1, EN 61000-4-5)
- Inmunidad a la falta de tensión (EN 61326-1, EN 61000-4-11)

DE**Referenznormen****Richtlinie Niederspannung***Tests und Prüfungen hinsichtlich der elektrischen Sicherheit*

- Energiebestimmung – Messung der Leistung und des aufgenommenen Stroms (EN 61010-1 – Art. 5.1.3)
- Messung des Streustroms bei Betriebstemperatur (EN 61010-1 – Art. 6.5)
- Dielektrische Festigkeit bei Betriebstemperatur (EN 61010-1 – Art. 6.8)
- Durchgangsprüfung des Äquipotentialschutzkreises (EN 61010-1 – Art. 6.5)
- Feuchtebeständigkeit (EN 61010-1 – Art. 6.5)

Richtlinie elektromagnetische Verträglichkeit*Tests der elektromagnetischen Emissionen*

- Abgestrahlte elektromagnetische Störemissionen (EN 61326-1, EN 55011)
- Geleitet elektromagnetische Störemissionen (EN 61326-1, EN 55011: Grenzwerte der Klasse A)
- Emissionen von harmonischem Strom (EN 61000-3-2)
- Spannungsfluktuationen und Flicker (EN 61000-3-3)

Tests zur elektromagnetischen Empfindlichkeit

- Immunität gegenüber abgestrahlten elektromagnetischen Störfeldern (EN 61326-1, EN 61000-4-3)
- Immunität gegenüber geleiteten von RF-Feldern gebildeten elektromagnetischen Störfeldern (EN 61326-1, EN 61000-4-6)
- Immunität gegenüber elektrostatischen Entladungen (EN 61326-1, EN 61000-4-2)
- Immunität gegenüber Schnellstromtransistoren (EN 61326-1, EN 61000-4-4)
- Immunität gegenüber Langsamstromtransistoren (EN 61326-1, EN 61000-4-5)
- Immunität gegenüber Spannungseinbrüchen (EN 61326-1, EN 61000-4-11)



TENSIONE - VOLTAGE – TENSION – TENSION - SPANNUNG



ATTENZIONE
Togliere tensione
prima di rimuovere
il coperchio



WARNING
Disconnect the
mains supply before
removing this cover

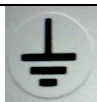
TOGLIERE TENSIONE PRIMA DI APRIRE IL PORTELLO
DISCONNECT THE MAINS SUPPLY BEFORE REMOVING THIS COVER
ENLEVER LA TENSION AVANT D'OUVRIR LA PORTE
QUITAR TENSION ANTE DE ABRIR LA VENTANILLA
UNTERBINDEN SIE DIE STROMZUFUHR, BEVOR SIE DIE TUR OFFNEN



ATTENZIONE
ATTENTION
ATTENTION
ACHTUNG

ALTA TEMPERATURA
HIGH TEMPERATURES
TEMPERATURES ELEVEES
HOHE TEMPERATUR

ATTENZIONE: ALTA TEMPERATURA
ATTENTION: HIGH TEMPERATURE
ATTENTION: TEMPERATURES ELEVEES
ATENCION: TEMPERATURA ALTA
WICHTIG: HOHE TEMPERATUR



CONNESSIONE A TERRA - EARTH CONNECTION - CONNEXION A' TERRE
CONNECTION EN TIERRA - ERDUNG

ATTENZIONE

All'inizio di ogni ciclo inserire
acqua in camera, avviare il ciclo e
contemporaneamente chiudere il portello.



ATTENTION

At the beginning of each sterilization
cycle put water into the chamber, then press
the button start and immediately close the door.



ATTENZIONE: ALL'INIZIO DI OGNI CICLO INSERIRE ACQUA IN
CAMERA, AVVIARE IL CICLO E CONTEMPORANEAMENTE CHIUDERE IL
PORTELLO.
ATTENTION: AT THE BEGINNING OF EACH STERILIZATION CYCLE PUT
WATER INTO THE CHAMBER, THEN PRESS THE BUTTON START AND
IMMEDIATELY CLOSE THE DOOR.
ATTENTION: POUR DEMARRER CHAQUE CYCLE DE STERILISATION,
INTRODUIRE L' EAU DANS LA CHAMBRE, DEMARRER LE CYCLE EN
APPUYANT SUR LE START ET, EN MEME TEMPS, FERMER LA PORTE.
ATENCIÓN: ANTES DE CADA CICLO PONER AGUA EN LA CÀMARA,
EMPEZAR EL CICLO Y CÈRRAR LA PUERTA DEL AUTOCLAVE.
VORSICHT: AM ANFANG JEDES ZYKLUS BITTE WASSER INS KAMMER
EINLASSEN, START KNOPF DRUECKEN UND GLEICHZEITIG DIETUER
ZUMACHEN.

1. INDEX

PARAGRAPH	THEME
1	Index
2	Instructions for package and storing – disposal
3	Technical features
4	Supplied accessories
5	Installation
6	Introduction for sterilisation
7	Sterilisation table
8	Filling of the water tank
9	Emptying the water tank
10	Commissioning and preparing for sterilisation
11	Maintenance
12	Messages of the alarm and error displays
	Warranty

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2. ISTRUCTIONS FOR PACKAGE AND STORING

The autoclave is packed as follows:

It is in a polyethylene bag which is protected by a carton protection.

The package is not sterile.

The package and the autoclave are fragile, therefore handle with care, transport without shakes and hits and do not turn upside down. Do not lift the autoclave with sudden strokes; **the package handles are used only for the vertical lifting.** Preserve in dry and protected areas at a temperature (+5;+40)°C.

Stocking 3 packaged autoclaves (same model) is allowed

PACKAGE OVERALL	(530X510X600) mm	MOD. 1 – 2
DIMENSIONS :		
BOARD MATERIAL :	BIWALL, 3 CORRUGATIONS	
PACKAGE MATERIAL :	THEN WE PUT THIS PACKAGE IN A CARTON BOX, WHICH IS REINFORCED WITH TWO WOODEN BARS.	
BAG MATERIAL :	POLYETHYLENE	
WEIGHT OF THE PACKAGED	35-37 kg	MOD. 1 – 2
MACHINE :		

ATTENTION:

THE PACKAGE MUST BE PRESERVED DURING THE WOLE GUARANTEE PERIOD; THE MANUFACTURER NOT ACCEPT RETURNS WITHOUT ORIGINAL PACKAGE.

DISPOSAL

This product is subject to Directive 2002/96/EC of the European Parliament and the Council of the European Union on Waste of Electrical and Electronic Equipment (WEEE) and, in jurisdictions adopting that Directive, is marked as being put on the market after August 13, 2005, and should not be disposed of as unsorted public waste. Please utilise your local WEEE collection facilities in the disposition and otherwise observe all applicable requirements.

3. TECHNICAL FEATURES

DEVICE MECHANICAL FEATURES

Use room temperature	+5°C ÷ +40°C
Device dimensions (X,Y,Z)	445mm, 385mm, 500mm MOD. 1 - 2
Opened door overall dimensions	380 mm
Weight with empty device tanks	30 kg MOD. 1 - 2
Weight with full device tanks	35 kg MOD. 1 - 2
Material making up the device furniture	Steel Fe370
Furniture temperature after 1 working hour	(50÷55)°C
Sound intensity level	50 dB
Package overall dimensions (X,Y,Z)	530 x 510 x 600 mm MOD. 1 - 2

DEVICE ELECTRICAL FEATURES

Supplying voltage	230 V±10% A.C.
Number of phases	1
Supplying frequency	50/60 Hz
Max. absorbed power	1600 W
Type of protection	PE
Insulation class	1
Length of the supplying cable L=2200mm	2x1.5mm² + EARTH
Fuses (6,3X32)	12A delayed
Electrical connector (pin)	SCHUKO 16A+EARTH

DEVICE PNEUMATIC FEATURES

MAX. using pressure	2.2 Bar Relative
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FEATURES OF THE FILLING AND DISCHARGE TANK

Capacity of the filling tank	2.2 litres
Material making up the filling tank	High density polyethylene
No. of cycles which can be carried out with completely full tank	5÷7 according to the instrument load
Features of the water to be used	Demineralized or distilled

FEATURES OF THE STERILIZATION CHAMBER

Dimensions of the sterilisation chamber	Ø 243 x 320mm MOD. 1
	Ø 243 x 400mm MOD. 2
Material making up the sterilisation chamber	INOX AISI 304

FEATURES OF THE SUPPLIED TRAY-HOLDERS

Material	Anodized aluminium
Number of supplied tray-holders	1
Tray-holder dimensions (X;Y;Z)	192 x 165 x 280 mm MOD. 1 - 2

FETAURES OF THE SUPPLIED TRAY

Material	Anodized aluminium
Number of supplied trays	4
Tray dimensions (X;Y;Z)	184 x 17 x 280 mm MOD. 1
	184 x 17 x 370 mm MOD. 2

X = WIDTH Y = HEIGHT Z = DEPTH

4. SUPPLIED ACCESSORIES

The autoclave is sold with the accessories included in the article and contained in the same package.

Accessories provided:

N°PIECE	DESCRIPTION
1	Tray extraction and door adjusting key
4	Tray
1	Instruments holder
1	Funnel
1	Tray holder

THE EQUIPMENT LISTED ABOVE DO NOT REQUIRE ADVICES

ATTENTION: LE COUVERCLE DU RESERVOIR D'EAU SE TROUVE A L'INTERIEUR DU KIT ACCESSORIES

5. INSTALLATION

The installation is a fundamental operation for the following use and good operation of the device.

Here is a list of the points to be followed in order to achieve a good installation.

1. The device must be installed inside a laboratory accessible only to the authorised personnel.
2. The room in which Autoclave is installed must be lighted according to standard UNI 10380 and enough ventilated.
3. Position the device on a plane surface with minimum capacity of 60 kg.
4. The autoclave feet are adjusted by the producer, in order to obtain a correct level on plane. Their modifications could compromise the autoclave good operation *Photo A*.
5. Leave at least 10 cm between the device rear part and the wall.
6. Position the autoclave at such a height as to make it possible for the operator to check the whole sterilisation chamber and to carry out the normal cleaning operations.
7. Do not install the autoclave near washing basins, taps, because the device furniture is not waterproof.
8. **Do not place trays, papers, containers with liquids, etc. on the device, because the device grids are used to ventilate and must not be obstructed.**
9. Do not lean on the door **1A** when it is opened.
10. Do not install the device near heat sources (for instance: Autoclave, Bunsen burner, kiln); keep a minimum distance of 40 cm.
11. In case the filling tank is directly discharged in waste waters, position the device at a height which is higher than the discharge.
12. The device cannot be built in because the water filling in the tank is carried out from above.
13. Install the device in such a way as not to excessively bend the supplying cable.
14. Make sure that the electrical system to which the device is connected is produced according to the laws in force and has the suitable dimensions for the device features; see PAR.2 of this manual.

15. Connect the device pin to a socket with a rated voltage of 230V $\pm$ 10% MONOPHASE + EARTH, frequency 50/60Hz, current 16A, as shown on the identification plate place in the rear side of the device.
16. Never connect the device pin to reductions of any type.
17. Load the filling tank as explained on PAR. 8 of this manual.
18. After the installation, carry out a LOADED sterilisation cycle as explained on PAR. 10 of this manual.

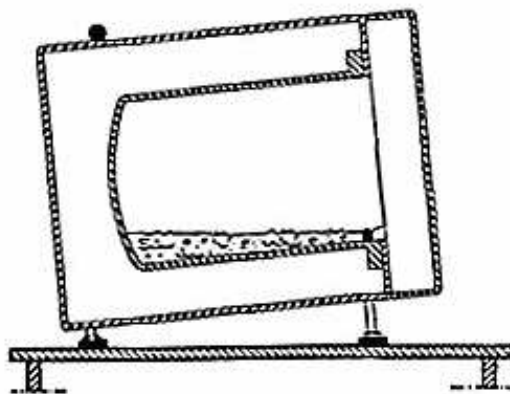


Photo A

6. INTRODUCTION FOR STERILISATION

The instruments to be sterilised must be previously cleaned, free from residual materials, blood, deposits, etc.

The above mentioned rests can damage the materials to be sterilised or the autoclave components; moreover, they do not ensure a perfect sterilisation.

1. Wash the instruments after using in cold water to remove any rest.
2. Insert the instruments in the ultrasound machine.
3. Rinse the instruments with clean water with care.
4. Dry the instruments to avoid that not demineralized water remains on them, this causing oxidation or instruments spots due to the calcareous rests.
5. Wash, rinse and dry also the supplied trays.
6. On the same tray only instruments of the same material must be placed.
7. The small mirrors must be positioned with glass downwards.
8. For a better sterilisation open the instruments such as forceps, shears or other composed instruments.
9. Do not stack the instruments on the trays. The instruments must be sterilised separately. An overload could compromise the sterilisation.
10. If empty containers are sterilised to avoid a water accumulation, it is necessary to place them upside down.
11. Sterilise the instruments only on the trays inserted in the supplied tray - holder; there must be a certain distance between the trays so that vapour circulates during the sterilisation phase, this easing drying.

7. STERILISATION TABLE

CYCLES	STERILISATION TIME [minutes]	DRYING TIME [minutes]	WORKING PRESSURE [Bar Relative]
121°C (not wrapped)	22,5	5	1,3 ± 0,2
134°C (not wrapped)	8	5	2,25 ± 0,2

The choice of the sterilisation cycle must be based on the data supplied by the producer of the object you want to sterilise.

8. FILLING OF THE WATER TANK

Take the cover away from the water tank. The cover is the punched plate with the knob.

Fill in the tank with distilled or demineralised water. Pour water until the lower edge of the plate divider *Photo B*.

Attention: the water in the tank must not top the plate divider.

Put the cover on the water tank.

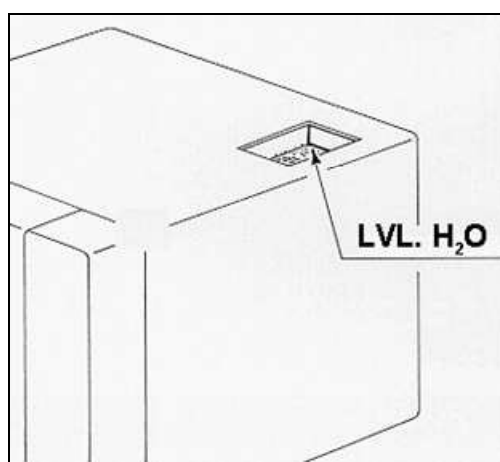


Photo B

NOTE: the use of feedwater with contaminants at levels exceeding those given in the table above can greatly shorten the working life of the device, with damage at the components of the autoclave and then invalidate the manufacturer's warranty!

TABLE OF QUALITY LEVEL IN ACCORDING TO DIRECTIVE UNI EN 13060 : 2005

CEN STANDARD UNI EN 13060 : 2005			
Evaporation residue	≤	10	mg/l
Silicium oxide, SiO ₂	≤	1	mg/l
Iron	≤	0.2	mg/l
Cadmium	≤	0.005	mg/l
Lead	≤	0.05	mg/l
Rest of heavy metals except iron, cadmium, lead	≤	0.1	mg/l
Chloride (Cl')	≤	2	mg/l
Phosphate (P20s)	≤	0.5	mg/l
Conductivity (at 20°C)	≤	15	μs/cm
PH value (degree of acidity)	5 to 7,5		
Appearance	Colourless clean without sediment		
Hardness (E Ions of alkaIn earth)	≤	0.02	mmol/l

9. EMPTYING THE WATER TANK

WARNING: SHUT DOWN THE AUTOCLAVE WITH THE **MAIN BUTTON BEFORE DISCHARGING THE TANK!**

1. Connect the supplied pipe to the discharge tap **3A**.
2. Unscrew the ring nut in counterclockwise direction *Photo C* (make 2 complete laps).
3. Wait that all the tank is emptied.
4. Rescrew the ring nut in clockwise direction *Photo D*.
5. In case of sterilisation failure, water in the tank could contain contaminated rests; **used protective lattice gloves to carry out this operation.**

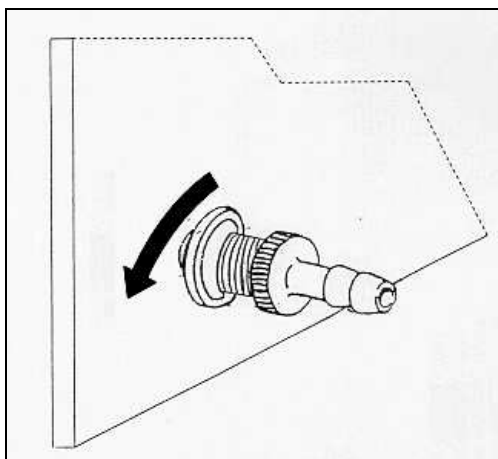


Photo C

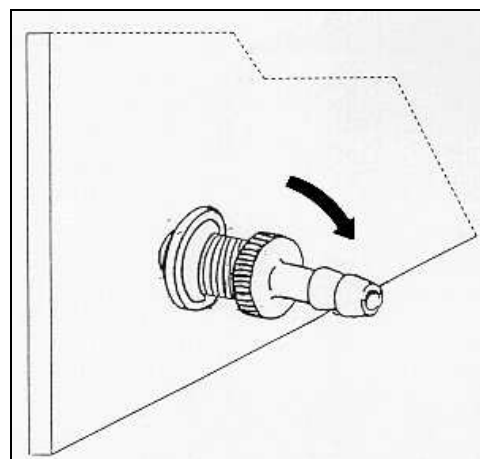


Photo D

10. COMMISSIONING AND PREPARING FOR STERILIZATION

1. Fill in the water tank (see paragraph 8);
2. Push the **MAIN BUTTON** to start the machine;
3. Open the door **1A**;
4. Push the button **PUMP** to let the water in the chamber. It is completed only when the water level reaches the metal the tablet in the lower part of the chamber *Photo E*.



Photo E

When the water has reached the metal tablet leave the button **PUMP** to stop the water inlet. It is important that you check continuously that the level of the water is not exceeding the metal tablet so that the water is not going out.

It is necessary to let the pump work for a minimum period before starting the cycle. This period is depending on the dimension of the sterilizing chamber but it never shorter than 15 sec.

If you try to start the cycle up without respecting this minimum period the autoclave is showing ERROR 400.

ATTENTION: LET ALWAYS WATER INLET BEFORE STARTING THE STERILISATION CYCLE UP!

5. Put the instruments on the trays according to the statements shown at the beginning of the manual;
6. It is very important not to lay the instruments upon another. Do not overcharge the trays.
7. Each time you start a sterilization cycle up you have to put in the chamber an integrator to receive a confirmation of the sterilization. We suggest to put the integrator in the middle of the chamber.
8. Set the required sterilization cycle (*Cycle 121°C or Cycle 134°C*) pressing the button **SELECT**.
9. Close and block the door and at the same time let the cycle start. If this is not happening in the stabilized time the autoclave is showing the ERROR 450.

ATTENTION: LET THE CYCLE START UP AND CLOSE THE DOOR AT THE SAME TIME

10. Start the sterilization cycle up pressing the **START/STOP** button.
The autoclave is starting the preheating phase (on the display you can read HEATING).
When the machine is reaching the necessary pressure for the chosen cycle, the sterilization phase is starting (on the display you can read "STERILIZ").
On the display is shown the remaining sterilization time.
When the sterilization cycle is completed, the machine is discharging the pressure and the drying phase is starting (on the display you can read "DRYING").
On the display is shown the remaining drying time.
When the sterilization cycle is completed on the display you can read "END".

IMPORTANT: BEFORE OPENING THE DOOR BE SURE THAT THE CHAMBER IS NOT UNDER PRESSURE. DO NOT OPEN THE DOOR IF THE PRESSURE VALUE SHOWN ON THE DISPLAY IS HIGHER THAN 0,03 BAR

11. Open the door **1A** after that you have checked that the chamber is not under pressure.
REMARK 1: the closing bolt is complete with a notch to not allow the door opening if the chamber is under pressure. To make the opening easier push the door toward the chamber;
REMARK 2: if you do not open the sterilization chamber immediately after the end of the sterilization cycle the steam is condensing on the door, so drops will drop while opening the door.

IMPORTANT: TO AVOID BURNINGS KEEP AT THE RIGHT DISTANCE WHILE OPENING THE DOOR AND KEEP SAFE FROM STEAM LOSSES

12. Keep the instrument from the sterilization chamber using protection gloves the special gripper.

11. MAINTENANCE

CAUTION: DISCONNECT ALWAYS THE MAIN SUPPLY BEFORE EACH TECHNICAL INTERVENTION!

11.1. DAILY ROUTINE MAINTENANCE

- Clean the seal on the door **1A** and on the outer edge of the sterilisation chamber sealing the gasket using a wet cloth or the soft part of the supplied sponge.
This cleaning operation must be carried out to remove possible dirt which can cause a pressure loss in the sterilisation chamber and a possible seal cut.
- Check the water level in the tank (see paragraph 8).

11.2. WEEKLY ROUTINE MAINTENANCE

- To remove the deposits on the chamber floor, clean with the abrasive part of the supplied sponge after removing the tray-holder.
To moisten the sponge, only use distilled or demineralized water.
- Empty the water tank (see paragraph.9).

11.3. QUARTERLY MAINTENANCE

- Lubricate the hinges and the closing pin with silicon oil.
- Adjusting the door **1A** :
If the handle **2A** is too frail while closing and blocking the door, turn it counterclockwise *Photo F* to increase the pressure of the gasket on the chamber.

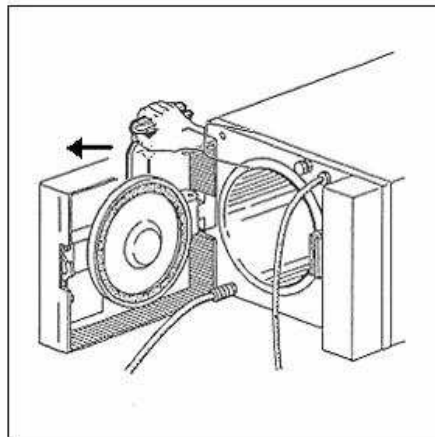


Photo F

Turn it clockwise to decrease the pressure.

12. MESSAGES OF THE ALARM AND ERROR DISPLAYS

MESSAGE	CAUSE
ERROR100	The sterilization cycle was interrupted by the operator pressing the START/STOP button
ERROR120	Low pressure in the chamber while sterilizing
ERROR125	High pressure in the chamber while sterilizing
ERROR140	The pressure did not increase properly during the preheating phase or the machine could not discharge the pressure at the end of the sterilizing cycle. If this is happening even if the water is in the chamber, dry and empty the sterilization chamber, reset the alarm, let the water in and restart the cycle up
ERROR199	The power was disconnected while the sterilization cycle
ERROR400	The cycle was started up without let water in the chamber for at least 20 sec. Dry and empty the sterilization chamber, reset the alarm, let the water in and restart the cycle up
ERROR401	The cycle was started up but 5 min went from the water inlet in the chamber. Dry and empty the sterilization chamber, reset the alarm, let the water in and restart the cycle up
ERROR450	The cycle was started up but the machine was hot. After the door 1A closing the machine let the water out of the chamber. Reset the alarm, wait until when the machine is cold, Dry and empty the sterilization chamber, let the water in and restart the cycle up
ERROR700	During the preheating phase, in 40 minutes was not reached pressure value established for sterilization. If this is happening even if the water is in the chamber, dry and empty the sterilization chamber, reset the alarm, let the water in and restart the cycle up
ERROR760	Failure in the device for the pressure level
ERROR800	The pressure did not go down properly during the drying phase.

If an error message is shown the sterilization cycle has failed. It is necessary to repeat all the preparing and sterilization phases.

If an error message appeared on the display during the sterilization phase, the cycle failed and the instruments in the chamber were not sterilized.

To reset the error message push the **SELECT button**



If the problem is coming out even if you carried out the listed operation, please contact the MEDILINE assistance +39 0522 - 942997

MEDILINE IS NOT ACCEPTING ANY RESPONSIBILITY FOR TECHNICAL INTERVENTIONS WHICH WERE CARRIED BY UNAUTHORIZED TECHNICIANS.

GUARANTEE

1. The product is guaranteed for a period of 12 months.
 2. The guarantee begins from the date of delivery of the machine to client proven by the restitution of the guarantee label attached to the tool, filled in, stamped and signed by the dealer.
 3. Repair or substitution during guarantee of a part is effected upon the absolute judgment of TECNO-GAZ company. It does not include the transfer of employees, packaging and shipping costs, which are charged to the customer.
 4. Excluded from the guarantee are light bulbs, fuses, and components subject to normal wear.
 5. The right to complete substitution of the machine is not recognized
 6. The guarantee does not cover damage caused by improper maintenance, negligence, incompetence or other causes not related to the constructor.
 7. The guarantee does not include any compensation for direct or indirect damage of any nature towards persons or things, caused by the inefficiency of the machine.
 8. TECNO-GAZ is not responsible for breakdowns or damage caused by inappropriate use of the product or in case ordinary maintenance has not been carried out or elementary principles of correct maintenance (negligence) have been ignored.
 9. There is no acknowledgment of compensation for machine stoppage.
 10. **Mounting, service, overhaul, and control of tools have to be carried out exclusively by service centers authorized by TECNO GAZ to be identified by the card issued after the participation in the certification course.**
 11. **Any intervention on the tool carried out by unauthorized staff excludes the right to guarantee as well as the direct liability of the producer. This also applies to interventions performed out of the guarantee period.**
 12. Components replaced under guarantee must be returned to TECNO-GAZ postage paid. Failure to return the part within 10 days the cost of the part will be charged to the buyer
 13. TECNO-GAZ does not accept return from final users, unless specifically authorized in writing.
 14. Return to TECNO-GAZ for repairs, must be controlled by the dealer or by service centers chosen by the final user in compliance with commercial procedures CM-P-003 entitled "CONTROL OF REQUESTS FOR RETURN, REPAIR, SUBSTITUTION OF TECNO-GAZ PRODUCTS AND CLIENT COMPLAINTS".
 15. Return to TECNO-GAZ must be documented and authorized as per internal procedures.
 16. **Products returned to TECNO-GAZ must have attached documentation of authorized return and a document describing the breakdown, otherwise the diagnostic cost will be charged.**
 17. All products in repair must be shipped to TECNO-GAZ postage paid and adequately packaged (we suggest using the original packaging)
- The goods travel at sender's risk.



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IT

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