

# AT-OS ENDO 3

## ENDOSCOPES STORAGE AND DRYING CABINET



### Configuration sheet rev. 08 08/04/2019

*It enables the technological configuration of the storage and drying cabinet ENDO 3*

#### Data:

Customer:

Reference:

Given configuration:



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### DISPLAY LANGUAGE

Code

<input type="radio"/>	Italian	216000100
<input type="radio"/>	English	216000200
<input type="radio"/>	Dutch	217001300
<input type="radio"/>	Spanish	217000500
<input type="radio"/>	Polish	217000300

### Legend

- ☒ Standard
- ☐ Optional (mark to request the option)

### DOCUMENTATION

Code

<input type="radio"/>	Italian user manual	214280401
<input type="radio"/>	English user manual	214280402
<input type="radio"/>	Dutch user manual	21428040A
<input type="radio"/>	Spanish user manual	214280405
<input type="radio"/>	Polish user manual	214280404

### CONFIGURATION

Code

<input type="radio"/>	ENDO 3	18008544
<input type="radio"/>	ENDO 3D	18008545



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### ELECTRIC VOLTAGE CONNECTION *Choose one application among the following*

Code

- |                                   |           |
|-----------------------------------|-----------|
| <input type="radio"/> 230V – 50Hz | 119906008 |
| <input type="radio"/> 230V – 60Hz | 119906017 |
| <input type="radio"/> 120V - 60Hz | 119906009 |

### Legend

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| <input checked="" type="checkbox"/> | Standard                              |
| <input type="checkbox"/>            | Optional (mark to request the option) |

### PACKING *Choose one application among the following*

Code

- |  |           |
|--|-----------|
| <input type="radio"/> ENDO 3 Carton                                      |           |
| <input type="radio"/> ENDO 3 Carton + wooden cage<br>For long transports | 119906010 |

**Notes** *(Please write down any note regarding special configurations, tensions, customized plugs, endoscopes' connectors...according to customer's needs)*



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After washing and disinfection, if the endoscopes are not immediately used again, they must be dried as quickly as possible and stored in aseptic conditions within the drying and storage cabinet.

The ENDO-3 cabinet by AT-OS has these features, plus it monitors the processing time and controls aseptic storage conditions before using the endoscopes again.

**High capacity with 12 endoscopes in total.** The instruments are housed on 3 vertical removable panels, each fitted with 2 hooks per side (in total 4 endoscopes per panel).

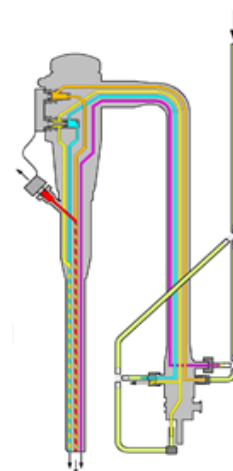
The wholly extractable panels ensure easy insertion as well as secure fixing in the arranged housings to prevent damage to the instruments. The vertical position ensures easier internal drying of the channels.

ENDO-3 is also available in a through version (ENDO3-D) suitable for installation where the dirty room is separated from the clean room. The doors are fitted with an interlocking system, if the door on one side is open the other door remains locked.



### CONNECTION ACCESSORY KIT

Connector KITS are required for drying the endoscope channels (one per endoscope), consisting of silicone tubes and connectors suited to the type of instrument used OLYMPUS, FUJI, PENTAX etc. The KIT is not included in the cabinet, but it is supplied separately upon providing the model and version of the instruments.



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### CONSTRUCTION

- Entirely built in AISI 304 stainless steel brushed Scotch Brite finish. The internal chamber is fitted with double wall perimeter panels, internally soundproofed with suitable soundproofing material.
- Right or left reversible front door with stainless steel frame and surface in tempered glass, with silicone perimeter strip to ensure perfect seal against dirt and dust.
- Closing system able to block the door and only allow it to be opened by qualified operators with a password. Moreover, there is a lock and key.
- The instruments are to be housed on 3 vertical removable panels in AISI 304 stainless steel, each fitted with 2 hooks per side (in total 4 endoscopes per panel).
- The panels with total extraction ensure easy insertion as well as secure fixing in the arranged housings to prevent damage to the instruments. The vertical position ensures easier internal drying of the endoscope channels.

- 2 low consumption LED lights are installed on the upper surface to light the inside of the cabinet during instrument loading and unloading operations.



The Endo-3 drying system is designed in accordance with EN16442:2015:

- No possibility of contamination between instruments thanks to the 12 mini air compressors installed with the relative flow systems (1 per instrument) completely separated up to the connector kits to be connected to each endoscope.
- The pumps operate independently, therefore they only work when the instrument to be dried is in the corresponding position.
- Each circuit (12 in total) is fitted with a pressure switch to check regular air flow to the channels of each instrument.
- The drying time is adjustable, but 3 hours of blowing time is enough for good results.
- Before being injected, the air is heated to a temperature not exceeding 40 °C to avoid any damage to the instruments (500W heating element).
- The time the instrument remains in the cabinet, and consequently the warning, can be adjusted up to 720 hours. The validated process refers to a period of 192 hours.
- The cabinet is fitted with an HEPA14 filter and pre-filter on the air inlet.
- Endo-3 is fitted with a scanner to identify operators and endoscopes with barcode.



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- The PLC system ensures total traceability, saving every detail of the storage system. The system records the name of the operators using a given endoscope, the date and time of deposit and collection and much more. The system constantly checks how long each endoscope is stored in the cabinet and alerts the user with an alarm when the set interval expires.
- It is possible to record a list of users and endoscopes always available at each loading and collection.

- A 5.2" touch-screen is installed on the side panel, which displays the cabinet status and can be used to manage all the settings.

- Fitted with visual and/or sound alarms for flow faults in the drying circuits, and it tells you if the HEPA filter needs to be replaced.

- The display shows the status of each instrument: Drying stage, storage stage, Expired storage time alarm; the instrument needs to be reprocessed.

- ETHERNET port to connect the PLC to external traceability systems. It is also possible to save on a USB storage device a digital copy of the slips that are printed each time an endoscope is collected from the cabinet.

- The thermal printer built into the cabinet emits a slip each time an endoscope is collected, providing information on the user, endoscope type, loading and collection day and time, residual hours of deposit, status of the endoscope and any other event.

- Noise level lower than 50 dB in compliance with regulations in force.



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### Ventilated cabinet for endoscopes' storage and drying

Ventilazione dell'armadio tramite ventole poste nella parte superiore.  <i>Ventilation of the cabinet through fans placed on the top.</i>	Tensione	Frequenza	Potenza max assorbita	Corrente Assorbita
	Voltage	Frequency	Max consumption Power	Absorb Current
	120V ~	60 HZ	700 W	5.8 A
	230V ~	50 HZ	700 W	3 A

### END03 Ventilated cabinet for endoscopes' storage and drying

Peso <i>Weight</i>	Kg	350
Larghezza / Profondità / Altezza <i>Width / Depth / Height</i>	mm	1100 / 800 / 2100
Rumorosità <i>Noise</i>	dBA	< 50
Portata aria immessa nell'armadio <i>Air flow introduced in the cabinet</i>	m /h	150
Pressione <i>Pressure</i>	Pa	101325
Filtro aspirazione HEPA H14 <i>Aspiration filter</i>	mm	150x150x57
Dimensioni interne <i>Internal dimension</i>	mm	L785xP742xH1883
Volume interno <i>Internal volume</i>	L	1096
<i>Dispersione termica (Massima)</i> <i>(Max) Heat rejection</i>	J / h	358947,37
	BTU / h	341



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### END03D Ventilated cabinet for endoscopes storage and drying

Peso <i>Weight</i>	Kg	350
Larghezza / Profondità / Altezza <i>Width / Depth / Height</i>	mm	1100 / 800 / 2100
Rumorosità <i>Weight</i>	dBA	< 50
Portata aria immessa nell'armadio <i>Air flow introduced in the cabinet</i>	m /h	150
Pressione <i>Pressure</i>	Pa	101325
Filtro aspirazione HEPA H14 <i>Aspiration filter</i>	mm	150x150x57
Dimensioni interne <i>Internal dimension</i>	mm	L785xP742xH1883
Volume interno <i>Internal volume</i>	L	1096
<i>Dispersione termica (Massima)</i> <i>(Max) Heat rejection</i>	J / h	358947,37
	BTU / h	341

