

ENDOSAUBER ES TWIN -pro

- ✓ Automatic Dual Endoscope Reprocessor.
- ✓ Authorization Security RFID Card for Wash cycle time settings.
- ✓ Endoscope Detection and Data Reader through RFID Scanning.
- ✓ Wash Cycles: Enzymatic cleaning/ Disinfection/ Water Rinse
- ✓ Uninterrupted wash Cycle function
- ✓ Sensors security for Inlet Water / Overflow/ No Drain
- ✓ Compatible with All makes of Flexible Endoscopes.
- ✓ Compatible with any froth free Disinfectant.
- ✓ 4.3 inch Touch Screen Display.
- ✓ Endoscopes and Running cycle identification on Display
- ✓ Ultrasonic facility - Optional.
- ✓ Alcohol Drying- Optional.
- ✓ Reusable Medical grade filters.



Manufactured By

Endotech

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ENDOTECH

IN TOUCH WITH LIFE

Item Discription	Fully Automatic Dual Endoscope Reprocessor
Quantity	One
Department	Endoscopy
Date	January 2023
Supplier	
Manufacturer	Endotech,103, Jaygopal Ind. Estate, B Parulekar Marg, Dadar (W), Mumbai- 400 028. Maharashtra (India)
Technical Specifications	
Model	Endosauber - ES TWIN Pro (Advance Dual Scope Automatic Endoscope Reprocessor)
Number of Reprocessed Endoscopes	Max. 2 Endoscopes - simultaneously
Machine Designed for Use	Endoscope Washer - Table Top & Indoor Use only
Machine Dimensions	19" H x 27" W X 30" D (Inches) 47 H x 69 W X 72 D (cm)
Weight	50 Kg (Dry Condition) 55 Kg (When in use)
Power Cord & Socket	230 VAC / 6 Amp / 18 AWG / 3 Pin Computer Cord & Socket
Power Supply (At Inlet)	Voltage : 230 VAC Frequency : 50 Hz Input Current : 5 Amp
ELECTRICAL Protection	Replacable fuse 3 Amp (Inbuilt Spare fuse in Power Socket) / MCB
Water Supply Flow	10-12 ltr/min OR more when water Tap is fully open
Water Pressure Tolerance (Inlet)-Requirement	Between 0.2 to 0.3 Mpa (2 to 3 BAR) - 2-3 Kg
Water Supply Temperature-Req (INLET)	Max 25 °C (RECOMMENDED FOR ENDOSCOPE)
Disinfection Solution Tempreature-REQ (INLET)	Max 25 °C (RECOMMENDED FOR ENDOSCOPE)
Operating Tempreature	10 - 40 °C
WATER FILTER / Purifier	External Filter Required. R.O. OR U V Filtered water with Candle filter
Water Hardness	50 - 120 ppm (Parts per million)
Maximum fluid Delivery through Channels	1 ltr / min
Maximum Air Pump Pressure	29 PSI (2 BAR)
Cycle Time Range Setting (Disinfection /Water Rinse)	1 to 99 minutes
Pre-Cleaning & Enzymatic Wash cycle Time	Pre-Cleaning circulation & Enzymatic Wash : Settable
Air Purge (Through Endoscope Channels) with Drain	2 Min fixed Time for Endoscope Channel purging with dry air for drying working channel / Suction / Air / Aux

Technical Specifications

Cycle Completion indicator	Sound Indication / Visual & Data Print
Compatible Endoscopes	Olympus Flexible & Immersible Endoscopes Fujinon Flexible & Immersible Endoscopes Pentax Flexible & Immersible Endoscopes Karl Storz Flexible & Immersible Endoscopes
Compatible With Bronchoscope	Yes
Compatible Disinfectant Solution	Compatible with any froth free Disinfectant
Compatible Soap / Detergent	Any Low Foam Liquid Soap
Machine Body	All body parts made by Stainless Steel 304 - Powder coated
Immersion Tray for Endoscopes	Made by Fiber Glass with Colour coating
Tubings Available for Internal Endoscope Channel Cleaning	Biopsy / Suction / Air / Auxiliary (Elevator)
Cleaning Method	Exterior Cleaning : With Disinfectant / Water / Enzymatic (Soap) immersion Internal Channels Cleaning : With Disinfectant / Water / Enzymatic (Soap) flushing / Air Purge
Endoscope Immersion Tray Capacity	Approximately 14 ltrs
Disinfectant Solution Tank Capacity	Approximately 13 ltrs
Disinfectant Requirement for Cleaning	Approximately 12-13 ltrs
Level Sensor	Maintain appropriate level of fluid / Overflow / No Drain / Water Inlet Sensing
No Drain & Overflow Sensor's	To avoid Mixing / Draining liquids
Display	4.3 Inch Touch Screen Display, Showing Endoscope Details & Running cycle Status
LED Indication	Liquid Circulation & Air Purge
Alarm - errors	Buzzer indication for Errors (Liquids) - No Drain / Overflow / Inlet water / Emergency Stop
RFID Functions	Works as single Scope if sensed only one Endosope RFID & when sensed two Endoscopes works as Dual cleaning function to Avoid unnecessary Power, Disinfectant & Water Consumption. Default Scope 1 & Scope 2 Selection : in case of Breakdown in any side, operator can use any side individually. User can attached different Make Endoscope channel adaptors to Scope1 & Scope 2. It will help user to reprocess different Makes of Endoscopes without changing channel adaptors. If Make 1 adaptors connected to Scope 1 & Make 2 Adaptors connected to Sscope 2, user can set default scope option (Scope 1 OR Scope 2) for reprocess Make 1 Endoscope / Make2 Endoscope
Authorisation Security RFID Tag for Wash Cycle time setting	Wash cycle Time (Disinfectant Circulation & Water Rinse) can be set by Authorised person after sensing Security RFID Tag. Note : Contact Time of Disinfectant should be set as per recommended by Disinfectant Manufacturer. Water Rinse time should be set for minimum 2 Min
RFID Endoscope Data Reader	Easy Storage & printing of Endoscope details like Make, Type, Model, Serial No.
Cleaning Data Bifurcation	Enzymatic Wash Time / Disinfection Contact (Immersion) Time / Water Rinse Time / Total cycle Time / Cycle start Time / Cycle End Time / Auto cycle completion details (Auto1 / Auto2 / Manual)

Technical Specifications

Data Log Printer (Thermal Printer)	Data printing of Endoscope Cleaning details with Hospital Name / Date / Endoscope Make, Type, Model & Serial No / Disinfection Time, Water Rinse Time, Total Time Duration / Auto cycle completion (Auto1 / Auto2 / Manual) / Errors
Errors	No Drain / Overflow / Low Ext Water Pressure / No Ext Water / Emergency Stop.
USB Data Storage	Stored all cleaning data in USB Drive.
Memory Backup Mode for Safe Cycle functions	Time saver (In case of Power Failure, Cycle stops at any stage (Circulation / Air Flushing), it will starts where it had been stoped when power begins.
Functions	Auto 1 / Auto 2 / Manual / Time & Date Setting / Wash Cycle : External immersion & Internal Circulation Cycle Time Selection / Menu - of Default Scope Selection for primary Side (1st Scope OR 2nd Scope)
Cycle / Modes / Time	Auto 1 : Precleaning Water / Disinfectant / Water Rinsing (All with Air purge) / Total Time : 14 Min (If Disinfection Time set for 5 min & Water Rinse 2 Min). Air Purge & Dran Time will be fixed for 2 min.
	Auto 2 : Soap (Enzymatic) / Water Rinsing / Disinfectant / Water Rinsing (All with Air purge) / Total Time : 20 Min (If Disinfection Time set for 5 min & Water Rinse 2 Min). Air Purge & Dran Time will be fixed for 2 min.
	Manual : Can be select Water & Disinfectant Cycle individually as per user requirements. Air Purge & Dran Time will be fixed for 2 min. after each individual cycle.
	Note : In all Auto cycles, the total cycle operation time depends on Disinfectant OR Water immersion with Circulation Time. If using High level Disinfectant with set 5 min immersion Circulation time & 2 min for Water immersion Circulation time, then it will take 14 min for a complete reprocessing Cycle in Auto 1 & 19 Min in Auto 2.
Cycle Duretion Time	Precleaning : If Set 1 min Immersion Time + 2 Min Drain & Air Purge : Total 3 Min
	Soap (Enzymatic) : If Set 3 min immersion Time + 2 Min Drain & Air : Total 5 Min
	Disinfection : 5 Min (As per user setting) immersion & Circulation + 2 Min Drain & Air Purge : Total 7 Min
	Water Rinse : 2 Min (As per user setting) immersion & Circulation + 2 Min Drain & Air Purge : Total 4 Min
Operational RFID Working	Can be run Single Scope OR Dual Scope cleaning cycle at a time by RFID Card Sensing programm. Can Be run Only Scope 1 OR only Scope 2 function with using Default Scope Selection .
Different Make Endoscope cleaning Mode	User can wash two makes of endoscopes without changing original cleaning adaptors with selection of ' Default Scope Selection Mode ' (Advice to consult with Company Engineer at the time of Installation.)
Leak Test	Not Available. (We recommend External Leakage Test for Each Endoscopes. It is essential to leak test the endoscope according to the manufacturers instructions. A general outline of the procedure is provided below. All endoscopes should be leak tested prior to immersion and between each patient use. The leak test will detect damage to the interior or exterior of the endoscope. Proceed to angulate the scope UP/ Down & Left/ Right, while keeping the bending section completely submerged. This practice can expose any pinholes or tears that may have been concealed while the scope was in the straight position. Perforated channels of endoscopes are an infection control risk and damage may also occur to parts of the endoscope not designed for fluid exposure.) https://www.totalscopeinc.com/insiders-guide-better-scope-leak-testing/
Free Accessories	Printer Rolls : 02 Nos, USB Drive : 01 No, RFID Tags for Endoscopes : Maximum 10 Nos., Authorisation Security RFID Tag (Wash Cycle). (Extra Charges for additional Tags & Lost Tags with visit charges)

Technical Specifications

Extra RFID Tag Charges	Rs 1000/- + GST for Extra RFID Tag for New Endoscopes Or Lost Or Damaged RFID Tags / Authorisation Security RFID Tag (Wash Cycle) : 2500/- + GST If card Lost Or Damaged
Shelf Life Of Equipement	Approx 5-6 Years
Upgradation	Upgradation is possible if any. (*Upgradation charges will be extra)
Reusable liquid filters	Air Channel Filter - Stainless Steel Mesh Filter (To Prevent Scope Air Channel Blockage during cleaning Process) / Suction filter - Stainless Steel Mesh filter
Consumables	Printer Rolls
Endoscope Channel Connectors (Adaptors)	Required Original Channel Connectors (Adaptors) supplied by Endoscope Manufacturer for leakfree connection.
Requirements For Installation	Stabilizer / RO Or UV Water with Candle filter / Stopcock at Water Inlet / External Water Pressure (2-3 Kg) / Platform OR Trolley / Drainage. <u>Ask for Installation requirement drawing from manufacturer (ENDOTECH).</u>

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