

## ENDOSAUBER ES Invent

- ✓ SINGLE-SCOPE Washer
- ✓ Table Top Model, Occupies less space.
- ✓ Authorization Security RFID Tag.
- ✓ RFID Endoscope Data Reader.
- ✓ Cleaning Data Bifurcation.
- ✓ Data Log Printer (Thermal Printer).
- ✓ USB Data Storage.
- ✓ Memory Backup Mode for Safe Cycle functions.
- ✓ Cleaning With Water Rinse / Disinfectant / Enzymatic.
- ✓ Compatible with Any Flexible Endoscope.
- ✓ Compatible With Any froth free Disinfectant.



### Manufactured By

#### Endotech

103, Jaygopal Industrial Estate,  
B. Parulekar Marg, Dadar West,  
Mumbai, Maharashtra 400028  
India.



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# ENDOTECH

IN TOUCH WITH LIFE

Item Description	Fully Automatic Single Endoscope Washer
Quantity	One
Department	Endoscopy
Date	
Supplier	
Manufacturer	Endotech,103, Jaygopal Ind. Estate, B Parulekar Marg, Dadar (W), Mumbai- 400 028. Maharashtra (India)
Technical Specifications	
Model	Endosauber - ES <b>INVENT</b> (Single Scope Automatic Endoscope Washer)
Number of Reprocessed Endoscopes	Max. 1 Endoscopes - simultaneously
Machine Designed for Use	Endoscope Washer - Table Top & Indoor Use only
Machine Dimensions	19" H x 27" W X 27" D ( Inches ) 47 H x 69 W X 69 D ( cm )
Weight	45 Kg ( Dry Condition ) 50 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 )
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 Temperature-REQ ( INLET )	Max 25 °C ( RECOMMENDED FOR ENDOSCOPE )
Operating Temperature	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: 1 Min Fixed / Enzymatic Wash : 3 Min Fixed
Air Purge (Through Endoscope Channels) with Drain	2 Min fixed Time

## Technical Specifications

<b>Cycle Completion indicator</b>	Visual & Data Print
<b>Compatible Endoscopes</b>	<b>Olympus</b> Flexible & Immersible Endoscopes <b>Fujinon</b> Flexible & Immersible Endoscopes <b>Pentax</b> Flexible & Immersible Endoscopes <b>Karl Storz</b> Flexible & Immersible Endoscopes
<b>Compatible With Bronchoscope</b>	<b>Yes</b>
<b>Compatible Disinfectant Solution</b>	Compatible with any froth free Disinfectant
<b>Compatible Soap / Detergent</b>	Any Low Foam Liquid Soap
<b>Tubings Available for Internal Endoscope Channel Cleaning</b>	Biopsy / Suction / Air / Auxiliary (Elevator)
<b>Cleaning Method</b>	Exterior Cleaning : With Disinfectant / Water / Soap immersion Internal Channels Cleaning : With Disinfectant / Water / Soap flushing / Air Purge
<b>Endoscope Immersion Tray Capacity</b>	Approximately 14 ltrs
<b>Disinfectant Solution Tank Capacity</b>	Approximately 13 ltrs
<b>Disinfectant Requirement for Cleaning</b>	Approximately 11-12 ltrs
<b>Level Sensor</b>	Maintain appropriate level of fluid / Overflow / No Drain
<b>Display</b>	LCD Display, Showing Running cycle Status
<b>LED Indication</b>	Liquid Circulation & Air Purge
<b>RFID Functions</b>	Works as single Scope if sensed only one Endoscope RFID
<b>Authorisation Security RFID Tag for Wash Cycle time setting</b>	Wash cycle Time (Disinfectant Circulation & Water Rinse) can be set by Authorised person after sensing Security RFID Tag. <b>Note</b> : Contact Time of Disinfectant should be set as per recommended by Disinfectant Manufacturer. Water Rinse time should be set for minimum 2 Min
<b>RFID Endoscope Data Reader</b>	Easy Storage & printing of Endoscope details like Make, Type, Model, Serial No.
<b>Cleaning Data Bifurcation</b>	Disinfection Contact (Immersion) Time / Water Rinse Time / Total cycle Time / Cycle start Time / Cycle End Time / Auto cycle completion details (Auto1 / Auto2 / Manual)
<b>Data Log Printer (Thermal Printer)</b>	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)
<b>USB Data Storage</b>	Stored all cleaning data in USB Drive.
<b>Memory Backup Mode for Safe Cycle functions</b>	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.
<b>Functions</b>	Auto 1 / Auto 2 / Manual / Time & Date Setting / Wash Cycle : External immersion & Internal Circulation Cycle Time Selection
<b>Cycle / Modes / Time</b>	<b>Auto 1</b> : Precleaning Water / Disinfectant / Water Rinsing (All with Air purge) / Time : 14 Min (If Disinfection Time set for 5 Min & Water Rinse 2 Min)

## Technical Specifications

	<p><b>Auto 2</b> : Soap (Enzymatic) Cleaning / Water Rinsing / Disinfectant / Water Rinsing (All with Air purge) / Time : 23 Min (If Disinfection Time set for 5 min &amp; Water Rinse 2 Min).  <b>Note</b> : In Auto 2 operation, put the appropriate amount of liquid soap in scope immersion Tray and start AUTO 2 function. Any Liquid Soap (Recommended froth free Concentrated) as per the ratio of dilution in water given by the Soap manufacturer.</p>
	<p><b>Manual</b> : Can be select Water &amp; Disinfectant Cycle individually as per user requirements.</p>
	<p><b>Note</b> : 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 &amp; 2 min for Water immersion Circulation time, then it will take 14 min for a complete reprocessing Cycle in Auto 1 &amp; 19 Min in Auto 2.</p>
<b>Cycle Duretion Time</b>	<p><b>Precleaning</b> : 1 Min Fixed Immersion + 2 Min Drain &amp; Air Purge : Total 3 Min  <b>Soap (Enzymatic)</b> : 3 Min Fixed immersion + 2 Min Drain &amp; Air : Total 5 Min  <b>Disinfection</b> : 5 Min (As per user setting) immersion &amp; Circulation + 2 Min Drain &amp; Air Purge : Total 7 Min  <b>Water Rinse</b> : 2 Min (As per user setting) immersion &amp; Circulation + 2 Min Drain &amp; Air Purge : Total 4 Min</p>
<b>Operational RFID Working</b>	Single Scope cleaning cycle only
<b>Different Make Endoscope cleaning Mode</b>	User can wash two makes of endoscopes without changing original cleaning adaptors with selection of 'Default Scope Selection Mode'
<b>Leak Test</b>	<p>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. <b>Proceed to angulate the scope UP/ Down &amp; 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.</b> Perforated channels of endoscopes are an infection control risk and damage may also occur to parts of the endoscope not designed for fluid exposure.)  <a href="https://www.totalscopeinc.com/insiders-guide-better-scope-leak-testing/">https://www.totalscopeinc.com/insiders-guide-better-scope-leak-testing/</a></p>
<b>Free Accessories</b>	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)
<b>Shelf Life Of Equipement</b>	Approx 5-7 Years
<b>Upgradation</b>	Upgradation is possible if any. (*Upgradation charges will be extra)
<b>Reusable liquid filters</b>	Air Channel Filter - Stainless Steel Mesh Filter (To Prevent Scope Air Channel Blockage during cleaning Process) / Suction filter - Stainless Steel Mesh filter
<b>Consumables</b>	Printer Rolls
<b>Endoscope Channel Connectors (Adaptors)</b>	Required Original Channel Connectors (Adaptors) supplied by Endoscope Manufacturer for leakfree connection.
<b>Requirements For Installation</b>	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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