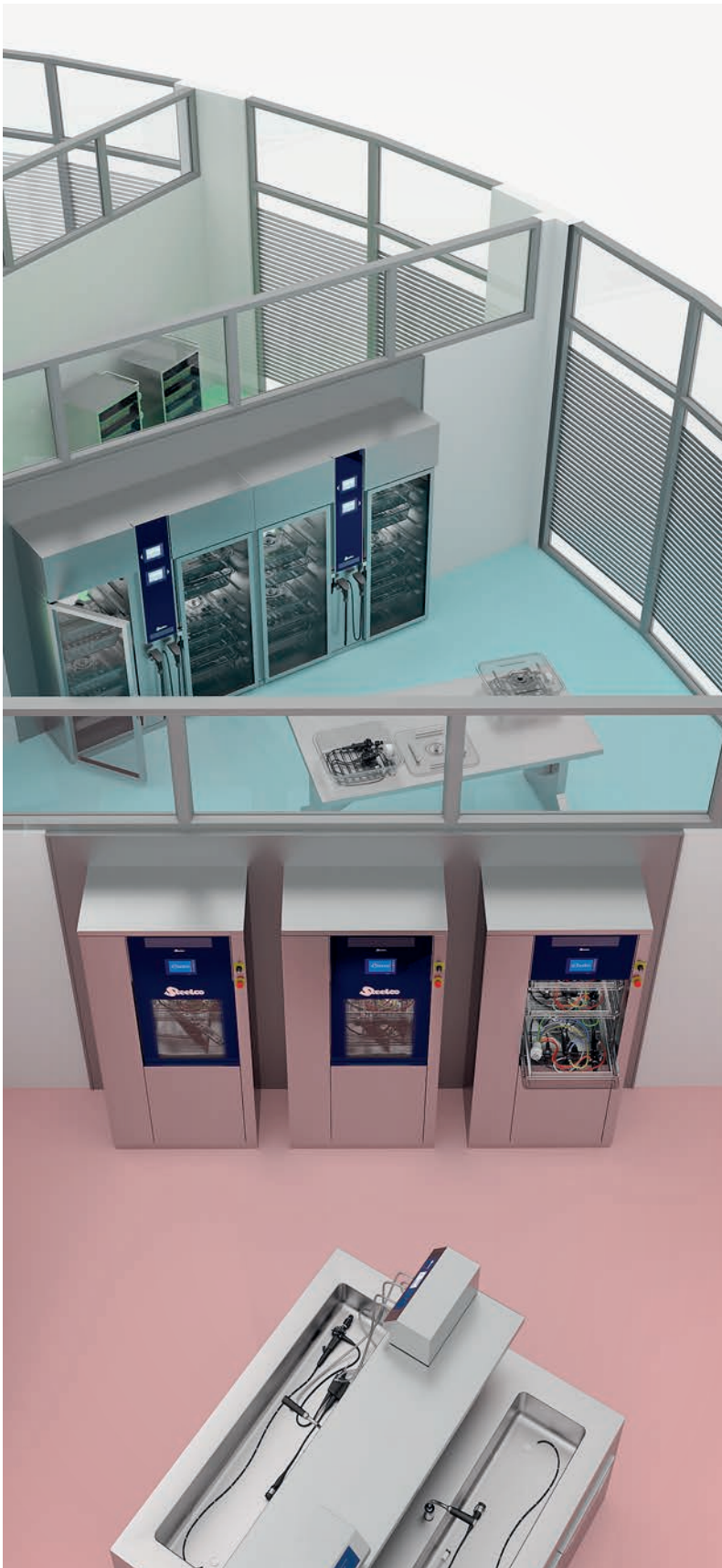


Flexible endoscope automated reprocessing system

Safe, efficient and user friendly solutions
for reprocessing flexible endoscopes in busy departments











Driven by customer needs

Steelco is a leading infection control solution provider, supplying the healthcare, laboratory research and pharma sectors. Active in over 90 countries, Steelco has equipped numerous world renowned hospitals and counts among its customers household names in the laboratory, pharmaceutical, and industrial sectors.



The new standard for maximum safety in endoscope reprocessing

- ①  **Automated assistance in manual cleaning**
- ②  **Automated endoscope reprocessing**
- ③  **Drying and storage**
- ④  **Traceability solutions**
- ⑤  **Workflow solutions**
- ⑥  **Process control**

Steelco Endoscope Washers are designed and constructed to comply with the latest European Standard **EN ISO 15883-4** and **EN ISO 14937**, drying cabinets are in compliance with **EN 16442**. Steelco devices are classified CE Medical Device (Community rule 93/42/CEE) code nr. 0051.

Working in close collaboration with leading endoscope reprocessing centres, Steelco developed the ARES sytem to best meet the current and future needs of clinicians.

+ Workflow

To maximize efficiency whilst decreasing the risk of cross contamination

+ Fast processes

To minimize the time between endoscope use, cleaning and storage

+ Fully compliant with the standards

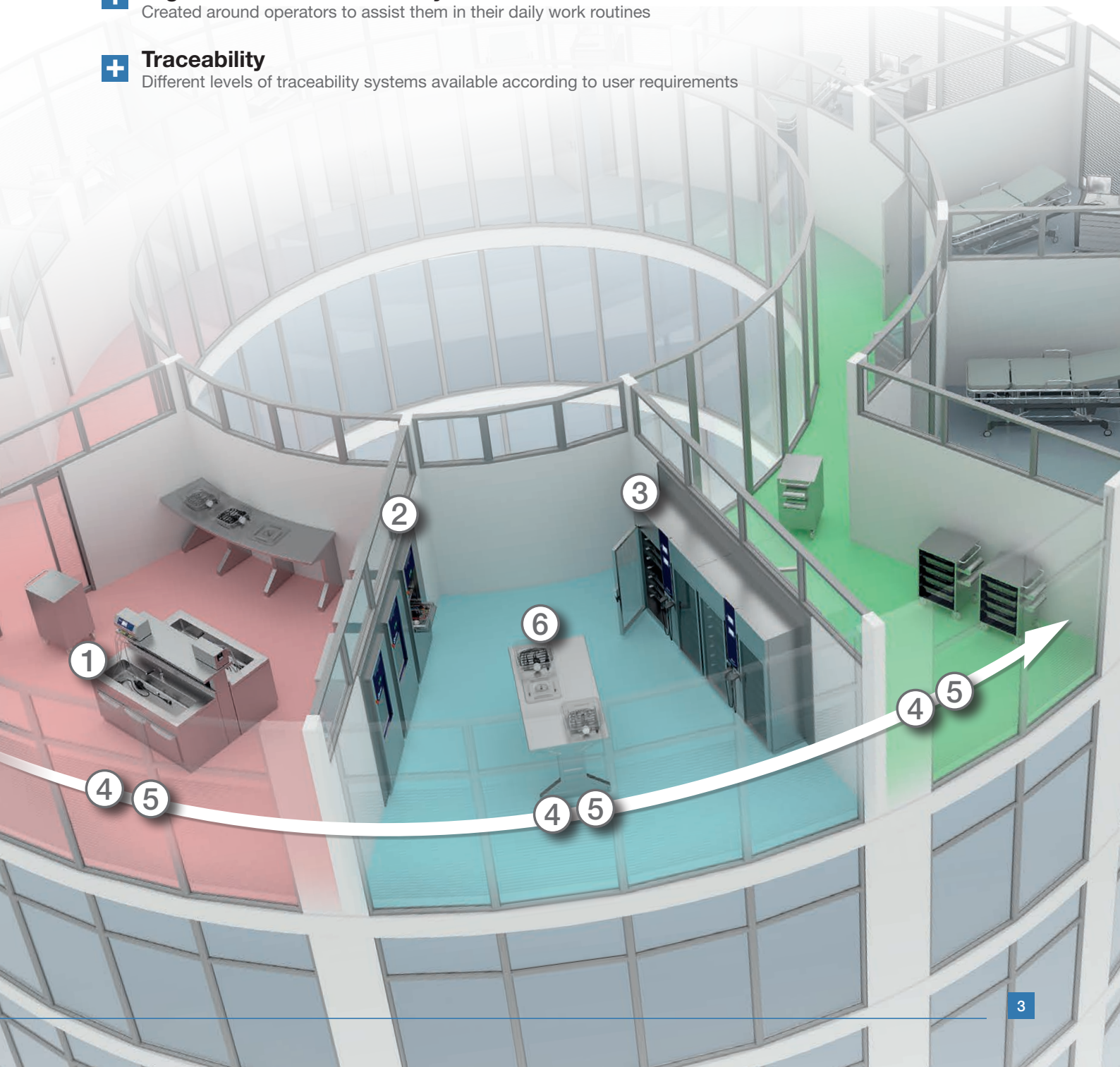
Designed to comply with latest standards and traceability functionality

+ Ergonomic and user friendly

Created around operators to assist them in their daily work routines

+ Traceability

Different levels of traceability systems available according to user requirements





Complete solutions

The first step to provide the right solution is understanding individual customer needs and offering the best solution based on current and future workflow and workloads.



EPW 100 Series

Automated system to assist manual cleaning



Page 6



EW Series

Automated endoscope reprocessors for different size departments



Page 8

ED Series

Aseptic vertical and horizontal endoscope storage



Transport solutions

Safe transport solutions for endoscopes and accessories



Page 17

Traceability



Page 20

Process control



Page 22



OCS, One-time Connection System for all processing and storage



reduced contamination risk

one-time endoscope handling

one-time channel connection

error proof connection

three-times faster connection

unique identification ocs/instrument

easy and ergonomic



the appliances showing this logo are equipped with OCS one-time connection system, fitting prewashing, washing/disinfection and drying/storage devices











EPW 100 Series

Automated system to assist manual cleaning

EPW assists operators during manual cleaning phase by leak testing endoscopes, flushing and rinsing channels, eliminating the risk of stress induced injuries and providing a permanent record of the process that can be printed, transferred to a USB stick or integrated into SteelcoData.

This systems allows total immersion of endoscopes according to most European country guidelines.

-  Leak testing
-  Elimination of repetitive strain injury risk of flushing and rinsing with a syringe
-  Identification of operator and endoscope using barcode
-  Traceability of critical parameters of manual cleaning process
-  Organic residue testing facility
-  Automatic dosing of correct detergent
-  Controlled correct pressure and volume during flushing and rinsing phases
-  Residual detergent risk eliminated through automated flushing

Sinks and furniture for manual cleaning

Different sized sinks and furniture specifically designed to assist manual cleaning are available.



99911264 Manual
99912083 Automatic
 LxDxH: 2000x700x985 mm
 Sink LxW: 1850x250 mm

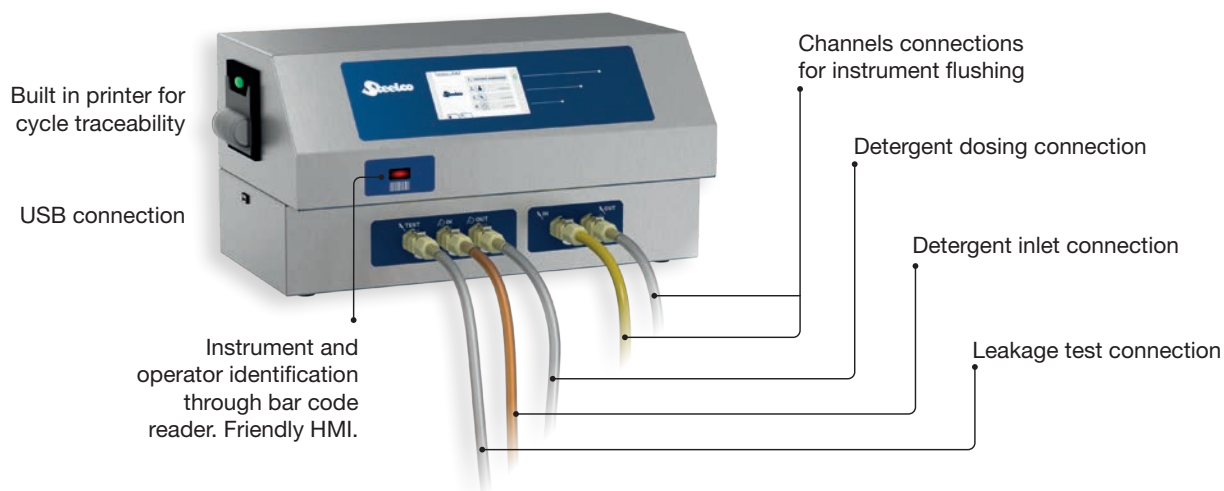


99911265 Manual
99912015 Automatic
 LxDxH: 1200x700x985 mm
 Sink LxW: 1050x300 mm



99911266
 LxDxH: 500x700x985 mm

EPW 100

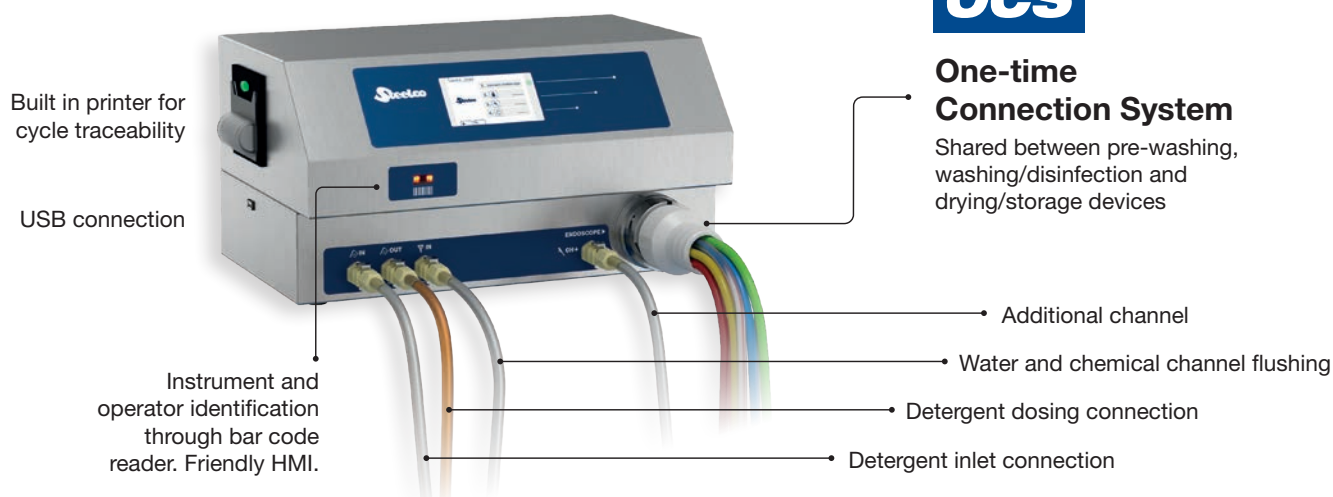


EPW 100 S



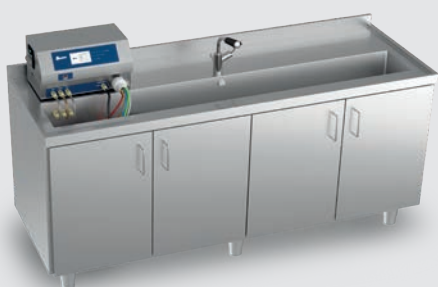
One-time Connection System

Shared between pre-washing, washing/disinfection and drying/storage devices



Sink cabinet with automatic filling and draining

Suitable for both versions of automated systems to support manual cleaning, EPW 100 and EPW 100 S.



+ This systems allows total immersion of endoscopes according to most European country guidelines.

EPW 100 display: intuitive and simple to use.

- Automated user prompts with operator and scope recognition
- Step by step user guide





ARES

Flexible endoscope reprocessors

Steelco AERs have been designed to **fully comply with ISO 15883 standard** regarding low temperature washing and high level disinfection of flexible endoscopes.

Individual channel monitoring for pressure and flow according to individual scope parameters to achieve correct cleaning and disinfection.

Available in **single or pass through double door versions** for the rapid reprocessing in under 30 minutes of either **1, 2 or 3 flexible endoscopes or up to 9 fiber bronchoscopes**.

Ergonomic instrument connectivity and **integrated transport solutions** simplify operator handling.

Low water and chemical consumption with a small footprint, yet with easy operator and service access, means lowest possible operating costs and best capacity to space ratio.

Dual stage water filtration system down to 0.1microns for endotoxin removal and disinfection of all water protects against contamination. Filters are decontaminated during the self disinfection program of the machine, thereby enhancing filter life expectancy.

EW 2 Series



EW 2 S Series



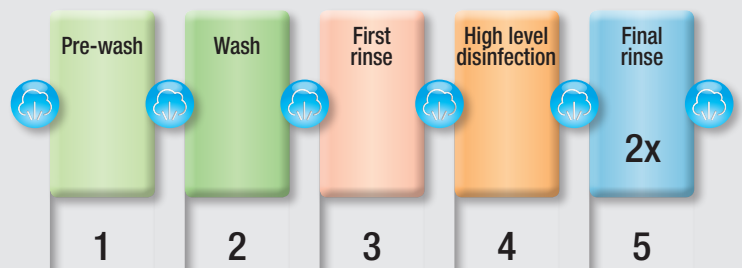
EW 1 S Series



EW series
Automated endoscope reprocessing cycle



Purging before and after each cycle with sterile air



Start cycle

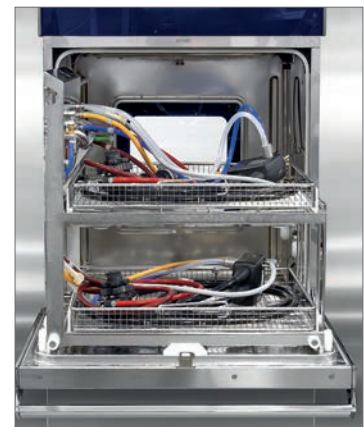
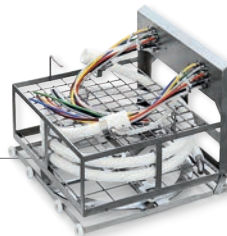
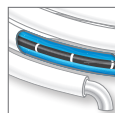
End cycle

- + 2 scopes capacity**
Dedicated wash carts for **2 flexible** endoscopes,
or **6 fiber** broncho/cystoscopes, **4 video** broncho/cystoscopes

- + Easy loading**
Slide and rotate design for easy connection of channels
even in tight workspaces

- + Loading on transport trolley**

- + Endoscope sleeve holder**
To maximize contact between external
endoscope surface and chemistries



- + 2 or 3 scopes capacity**
Universal wash carts for **2 or 3 flexible** endoscopes,
6 or 9 fiber broncho/cystoscopes or
4 or 6 video broncho/cystoscopes

- + Workflow optimization**
Dedicated mesh trays are compatible with
Steelco ED series of drying cabinets

- + Easy Loading**
Sliding drawers allows easy single handed
connection, motorized automatic sliding door.

- + Channel connectivity**
Manual with OCS,
One-time Connection System



- + 1 scope capacity**
Universal wash carts for **1 endoscopes**, or **3 fiber** broncho/cystoscopes
or **2 video** broncho/cystoscopes

- + Workflow optimization**
Dedicated mesh trays are compatible with
Steelco ED series of drying cabinets

- + Easy Loading**
Motorized automatic hinged door, sliding
drawers allows easy single handed connection.

- + Channel connectivity**
Manual with OCS,
One-time Connection System



"Rack" version
The configuration "rack" is available
to optimize spaces and **reprocess**
asynchronously of more endoscopes.

Chemistries

The independently validated results achieved by
the ARES flexible endoscope reprocessor range
are strictly linked to the use of Steelco chemistries,
which provide cost effective rapid cycles.

Using non-validated chemistries contravenes
standards, can compromise cycle efficacy,
decontamination, and may cause damage to both
equipment and endoscopes.

DISINFECTED
ISO 15883-4

STERILIZED
ISO 14937





Accessories for EW Series



Duodenoscope accessories

For duodenoscopes and linearechoendoscopes available dedicate OCS connector and specific support for the reprocessing of the distal tip.



Safe Case

Safe Case enables reprocessing in accordance with ISO 15883 standards of TEE probes. The electronic control unit and connection cable are protected in a hermetically sealed case, whilst the distal tube that requires washing and high level non-thermal disinfection is exposed (not available for EW 1 S range).

EW 2 S Wash Carts



C1621 Insert for 12 rigid endoscopes without internal channels measuring 400 mm length max.



C961 stainless steel tray compatible with AER, transport cart and drying cabinet



C565 insert to avoid endoscopic instrument overlapping contact points

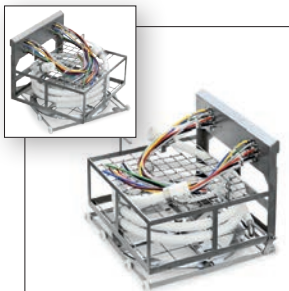
EW 1 S Wash Carts

C586 Washing cart for 1 flexible endoscope, including mesh basket and RFID card holder

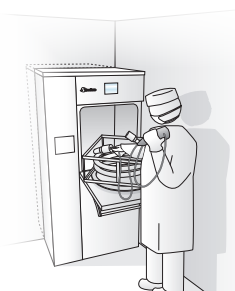
C584 Washing cart for video/fiber bronchoscopes and cystoscopes

C585 Washing cart for rigid endoscopes - 3 injection sleeves max length 450 mm; 5 Luer Lock connections max length 350 mm.

EW 2 Wash Carts



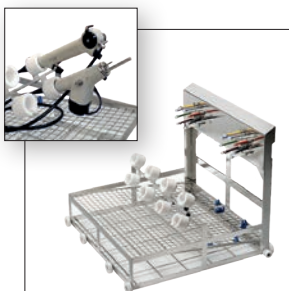
C558 rotating wash cart for ergonomic loading of 2 flexible endoscopes even in restricted areas



C559 wash cart with removable mesh trays for 2 flexible endoscopes



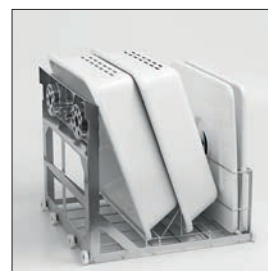
C563 wash cart for up to 20 rigid scopes with luer lock connections



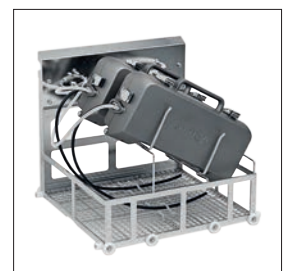
C560 Wash cart for the simultaneous treatment of: 4 videobronchoscopes/ cystoscopes or 8 fiberscopes/cystoscopes with separate control.



C279 transport trolley.



C568 wash cart suitable for transport cassettes.

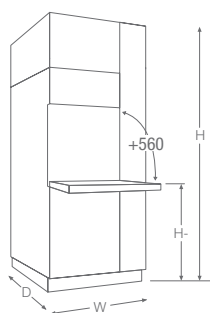


C572 wash cart suitable for SAFE CASE for transesophageal probes.

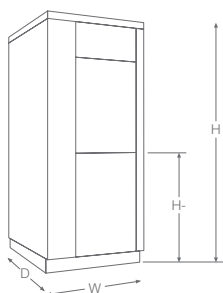
Technical data

AERs	EW 2	EW 2 2S	EW 2 3S	EW 1 S
Compliance with standards				
EN ISO 15883-4	•	•	•	•
european machine directive 2006/42/EC and medical device directive 93/42/EEC	•	•	•	•
independent testing of high level disinfection claims	•	•	•	•
Instrument connectivity				
number of flexible endoscopes	2	2	3	1
number of video broncho/cystoscopes	4	4	6	2
number of fiberbronchoscopes fibercystoscopes	6	6	9	3
number of TEE probes in Safe Case	2	2	3	-
number of channels including leak test	8x2	8x2	8x3	8x2
automated endoscope recognition and historic data monitoring	•	•	•	•
High level disinfection system				
individual channel monitoring for pressure and flow	•	•	•	•
compatible with peracetic acid, glutaraldehyde or hydrogen peroxide	•	•	•	•
internal chemical storage with flow monitoring	•	•	•	•
number of washing spray arms	2	3	4	2
unit thermal or chemical self disinfection cycle	•	•	•	•
external scope drying system	○	○	○	○
Door configuration options				
manual hinged door	•	-	-	-
automatic vertical sliding door	-	•	•	-
automatic hinged door	-	-	-	•
pass through double door version	•	•	•	•
front access for service and chemicals	•	•	•	•
Control system and traceability				
touch screen display	5,7"	5,7"	5,7"	7"
Barcode for user, scope and parameter recognition	•	•	•	•
RFID for user, scope and parameter recognition	○	○	○	○
RS232 serial port	•	•	•	•
integrated printer	○	○	○	○
ethernet port	•	•	•	•
SteelcoData software for paperless traceability and on line equipment monitoring	○	○	○	○
SteelcoData ARES software for paperless total process traceability and on line equipment monitoring	○	○	○	○
Utilities				
standard electrical connection	400V 3~+N 50/60Hz	400V 3~+N 50/60Hz	400V 3~+N 50/60Hz	230V 3~+N 50/60Hz
others available on request				
total power W (others available on request)	6300	6300	7000	3350
power pack recommended for glutaraldehyde cycle	○	○	○	○
water connections with filtering up to 0,1 µm	•	•	•	•
compressed air (medical grade)	•	•	•	○

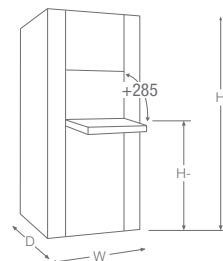
• = Standard ○ = Optional - = Not available



EW 2	W	D	H	H-
mm	860	660 710	1945	790



EW 2 2S/3S	W	D	H	H-
mm	860	710	1960	850



EW 1 S	W	D	H	H-
mm	700	570	1700	1050



Endoscope drying and storage cabinets

Both vertical hanging and horizontal basket or container storage options available in single or double door pass through versions with left or right hand door swings.



Independently validated to retain microbiology integrity **up to 720 hours**



Compatible with all brands of endoscopes



Storing of up to 18 endoscopes vertically and 16 horizontally



Warm sterile Hepa filtered air with indirect UV treatment for optimal drying of the outside of endoscopes and connection to internal channels



From printer option for hard copies to full traceability options with Steelco Data

ED 200 S Series



ED 200 Series

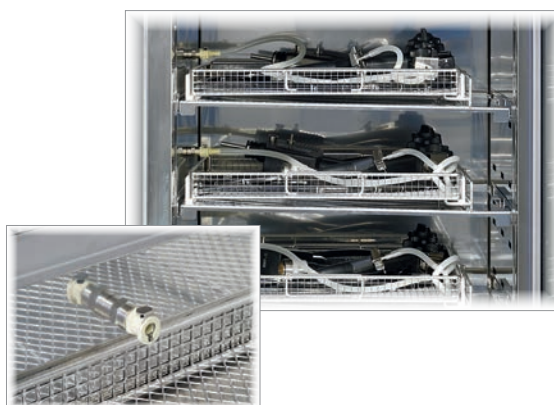
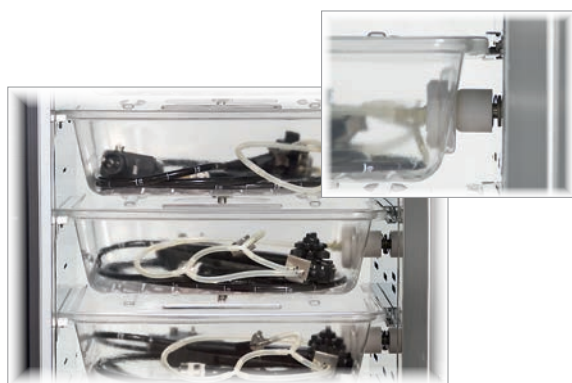


+ High capacity
models up to 8 or 16 endoscope connections

+ Horizontal storage
with stainless steel trays or plastic containers

+ Channel connectivity

- automatic with plastic cassettes
- manual with stainless steel trays and universal connector



+ High capacity
models up to 8 or 16 endoscope connections

+ Horizontal storage
with stainless steel trays

+ Channel connectivity:

- manual with stainless steel trays and OCS system (shared between prewashing, washing/ disinfection and drying/storage devices)





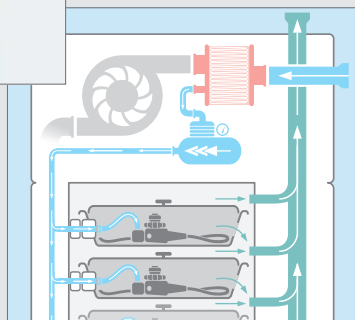
ED 250 Series



- + High capacity**
models for up to 9 or 18 endoscopes connection
- + Easy to use connector**
for all major endoscope brands
- + Sliding holder design**
for easy access from either side of cabinet in a compact footprint
- + Guides**
to ensure correct hanging, avoid damage and provide correct airflow around and through endoscopes

Optimal conditions for storage

Following effective cleaning and decontamination in an automated endoscope processor, maintaining the microbiological integrity of endoscopes during storage is fundamental in reducing cross infection risks. Steelco ensures this in a number of ways.



Sterile air filtering

The ED range is fitted with HEPA H 14 filters for maximum safety. Access for changing the filters is easy through the front panel of the dryers.

- Built in medical grade air compressor or connection to external compressed air source depending on model configuration
- Flow rates monitored in individual scopes

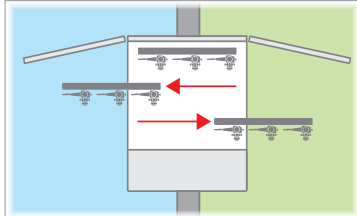


720 hours of aseptic storage

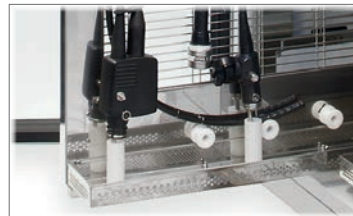
Steelco's ED series has been independently validated by European certified laboratories for maintaining aseptic integrity up to 720 hours providing you with greater flexibility in the storage of your endoscopes.



Bronchoscope holder available



Sliding holder design



Support for correct hanging



Control software

Software monitors the performance of the drying cabinet with colour coded status alerts and individual cycle data for each instrument for all machine parameters. Instrument identification is possible using barcode reader or RFID reader.

Individual scope status monitoring



- - Drying
- - Available for use
- - Storage time pre expiry alarm
- - Storage time limit expired

Steelco SCD

Ready to use Surface Cleaner Disinfectant.

Steelco SCD is a ready to use broad-spectrum disinfectant, mycobacteria, fungi, viruses.

It is particularly suitable for the rapid disinfection of surfaces of invasive and noninvasive medical devices including biomedical equipment.

Does not stain or corrode the materials.



UV light treatment

Indirect UV light treatment is used for air treatment to minimize the risk of cross contamination.

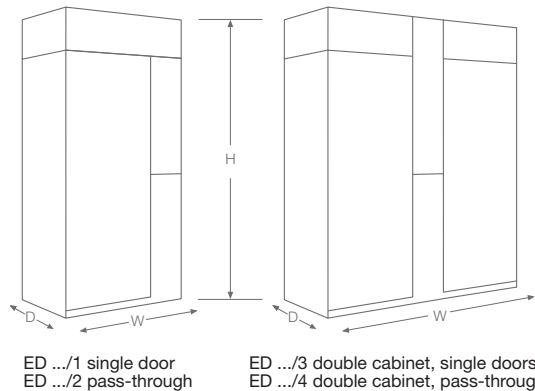
Traceability

Manual, barcode or RFID tag input for operator and scope identification.





Drying and storage cabinet dimensions

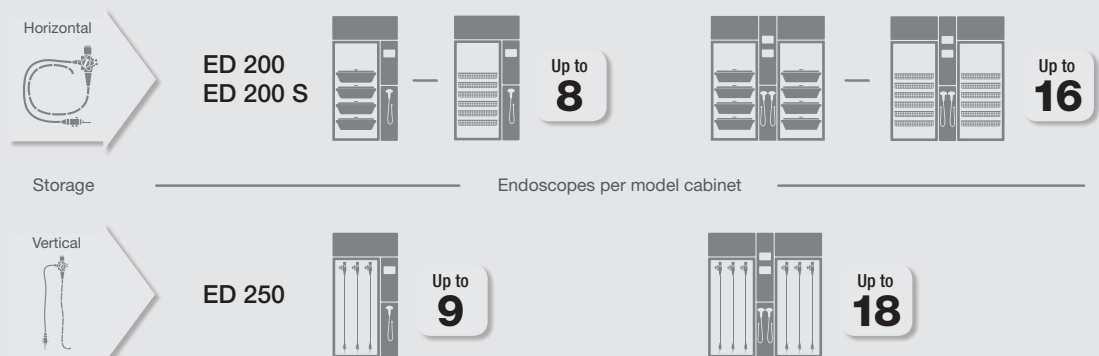


		ED 200			ED 200 S - ED 250		
		W	D	H	W	D	H
ED .../1	mm	970	810	1900	968	820	2270
	inches	38 ³ / ₁₆	31 ⁷ / ₈	74 ¹³ / ₁₆	38 ¹ / ₈	32 ¹ / ₄	89 ³ / ₈
ED .../2	mm	970	840	1900	968	840	2270
	inches	38 ³ / ₁₆	33 ¹ / ₁₆	74 ¹³ / ₁₆	38 ¹ / ₈	33 ¹ / ₁₆	89 ³ / ₈
ED .../3	mm	1705	810	1900	1713	820	2270
	inches	67 ¹ / ₈	31 ⁷ / ₈	74 ¹³ / ₁₆	67 ⁷ / ₁₆	32 ¹ / ₄	89 ³ / ₈
ED .../4	mm	1705	840	1900	1713	840	2270
	inches	67 ¹ / ₈	33 ¹ / ₁₆	74 ¹³ / ₁₆	67 ⁷ / ₁₆	33 ¹ / ₁₆	89 ³ / ₈

Drying cabinets	ED 200	ED 200 S	ED 250
Compliance with standards			
EN 16442 controlled environment storage cabinet for disinfected thermolabile endoscopes	•	•	•
independent testing of aseptic storage claims	•	•	•
Instrument connectivity			
number of flexible endoscopes independently monitored flow rate	8 or 16	8 or 16	9 or 18
compatibility with EW S series endoscope washer connecting system	-	•	-
automated endoscope recognition and historic data monitoring	•	•	•
UV light air disinfection	◦	◦	◦
Door configuration options			
storage type	horizontal	horizontal	vertical
front access for service and filter and UV change	•	•	•
Control system and traceability			
touch screen 5,7" graphic LCD display	•	•	•
Barcode or RFID use, scope recognition	◦	◦	◦
integrated printer	•	•	•
ethernet port	•	•	•
SteelcoData software for paperless traceability and on line equipment monitoring	◦	◦	◦
SteelcoData ARES software for paperless total process traceability and on line equipment monitoring	◦	◦	◦
Utilities			
standard electrical connection, others available on request	230V/~50Hz	230V/~50Hz	230V/~50Hz
total power W (per module)	2000	2000	2000

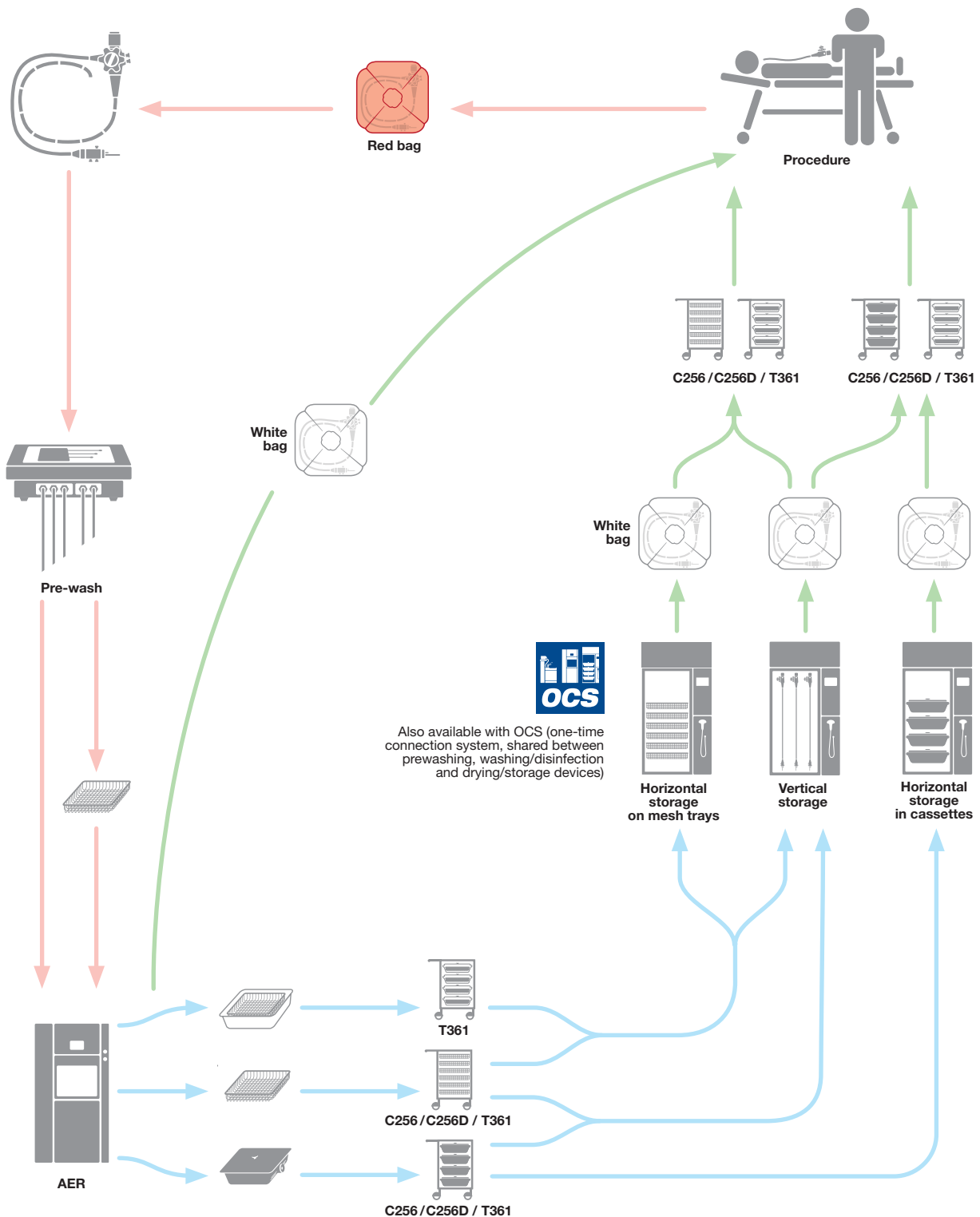
• = Standard ◦ = Optional - = Not available

Drying and storage capacity



Complete workflow solutions

Steelco offers complete workflow solutions for different department sizes and layouts, to maximize efficiency and safety.





Workflow solutions

C256/C256D stainless steel transport cart



For the transport of up to 4 endoscope containers or up to 6 stainless steel trays. Storage of white and red endoscope bags, together with red or green tamper proof seals for a quick colour code identification of clean and dirty scopes.

Top can be used as work surface. A version with frontal door is also available (C256D).

Compatible with ED 200 drying cabinet.



9992183 Transparent cassette for the perfect housing of C961 and the endoscope to avoid cross contamination. Compatible with T361 short term transportation system



9991504 storage cassette compatible with C256/ C256D/T361 transport cart and ED 200 drying cabinet



99912046 red/ **99912047** green tamper proof seals (250 pcs) for an easy colour code identification of dirty (red) or clean (green) endoscopes inside the cassette 9992183 and 9991504



ED100030 soiled (red) endoscope transport bag
ED100031 clean (white) endoscope transport bag

T361: Short term transportation system



To improve and maximize safety, thus reducing cross contamination risk while moving the endoscope across GI Labs dirty and clean paths.

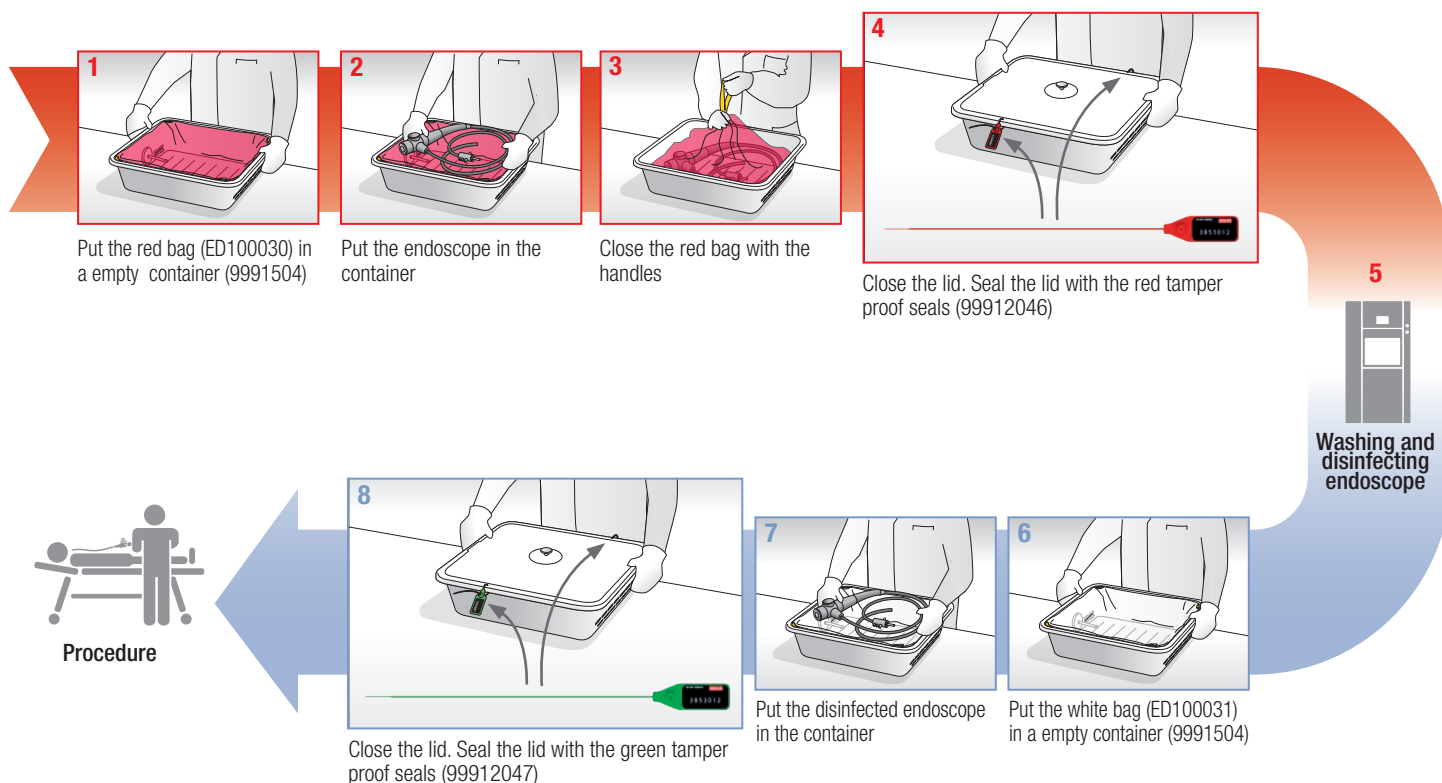
The trolleys can be equipped up to 6 cassettes, together with red or green tamper proof seals, or 6 stainless steel tray.



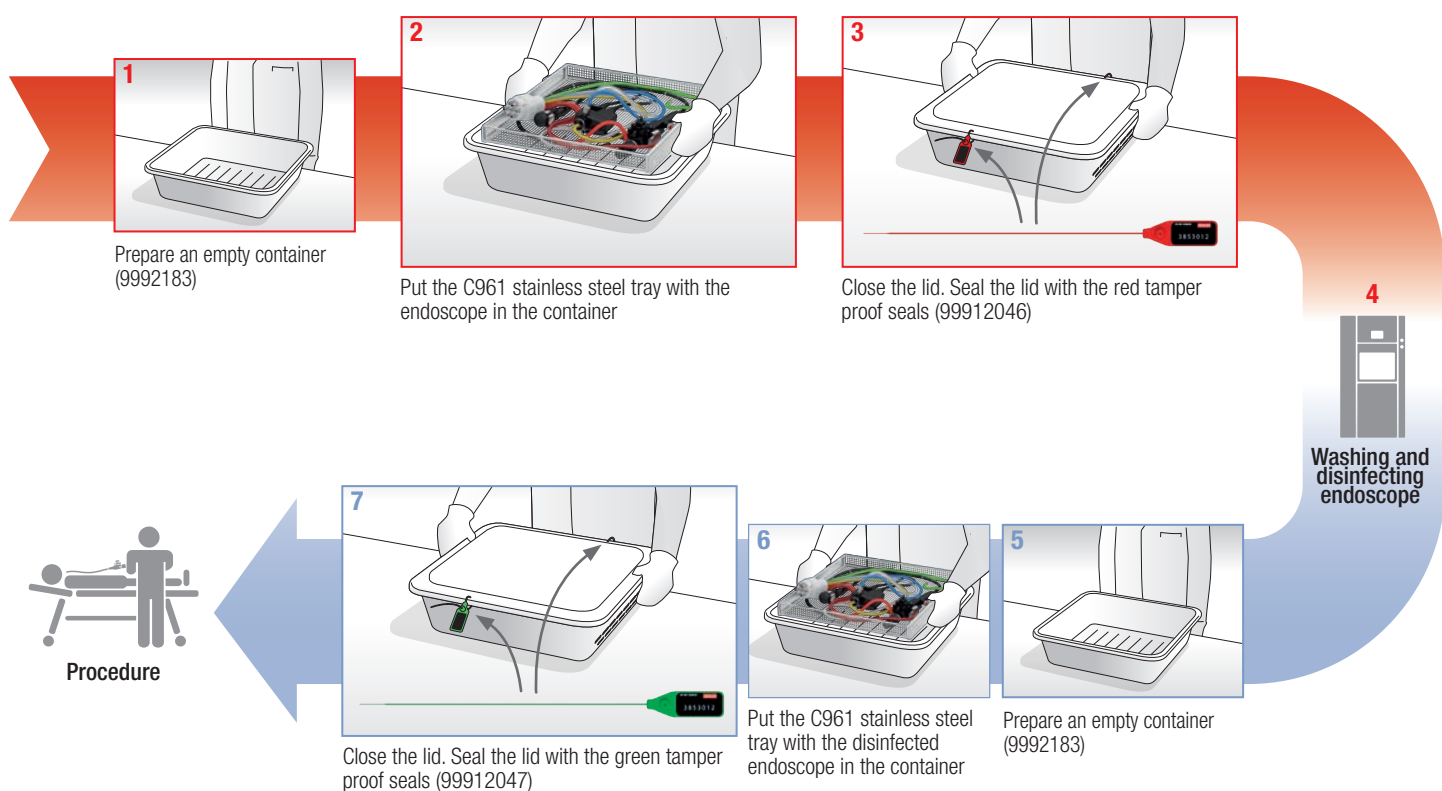
Compatible with OCS
One-time Connection System.



C256/C256D: way from dirty to clean area



T361: way from dirty to clean area

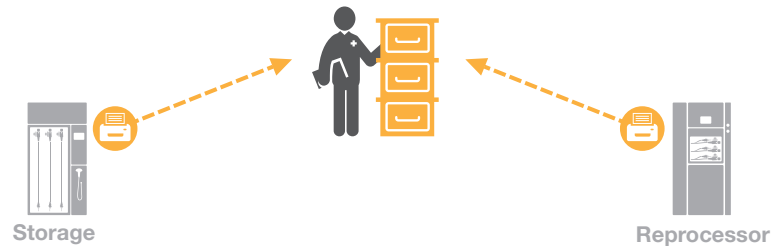




Process Traceability

Level 1

Paper cycle record keeping



Level 2

SteelcoData

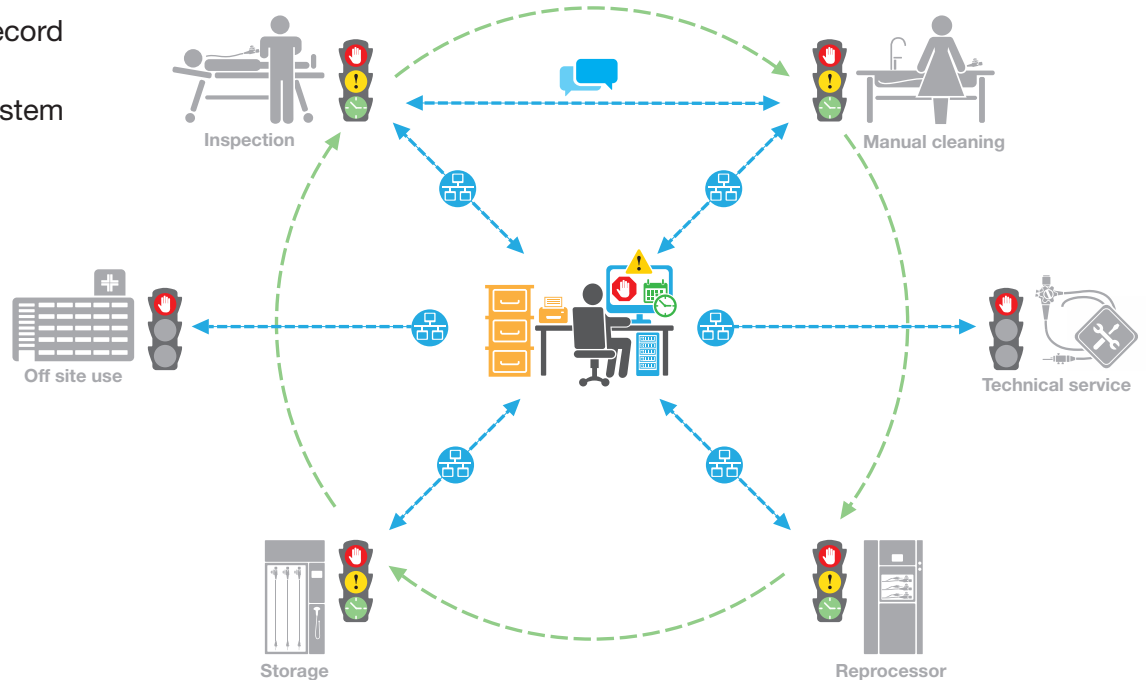
- Electronic cycle record keeping



Level 3

SteelcoData ARES

- Electronic cycle record keeping
- Full traceability system



Legend:



Information communication and process control



Stop



Warning



Elapsed time



Total digital monitoring of all cycle phases



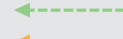
Network



Internal messages



Digital communication



Process flow



Print flow



Archiving

Steelco equipment can be configured to provide data to the level required by customers for monitoring the reprocessing of flexible endoscopes

+ Key functions:

Printed cycle verification

Patient	_____
Doctor	_____
Result	COMPL OK
Date	31/05/2015 10:00:14
Cycle type	ENDOSCOPES
Program	003 STANDARD PERACET
Instrument	0110 000000
Date Start	31/05/2015 10:10:10
Operator	STICANO
Work order	00000000000000000000
Cycle	Nr0000035
Date	31/05/2015
Time	10:30:56
Software	05.04.00
Serial	000000
User	ENDOSCOP I A

+ Key functions:

- Printed cycle verification
- Remote online equipment monitoring

ALL OK		INSTRUMENT STATE		31/05/14 17:30	
C: 41,0 °C		DOOR OPEN		R: 40,8 °C	
1	001 EB-SUM	GASTROSCOPE	FLUY	71,59	
2	002 CF-Q10AL	DUODENOSCOPE	OLYMPUS	1,59	
3	003 POF-Q10AL	COLONOSCOPE	OLYMPUS	70,53	
4	004 GASTROSCOPE	GASTROSCOPE	OLYMPUS	0,00	
5				0,00	
6	012 CF-Q10AL	DUODENOSCOPE	OLYMPUS	50,19	
7	015 CF-Q10AL	DUODENOSCOPE	OLYMPUS	61,39	
8				0,00	

+ Key functions:

Remote online equipment monitoring:

Traceability information

Records of manual cleaning
instrument recognition
operator
patient
clinician

Manual cleaning:

instrument
operator
leak testing

Automated reprocessing:

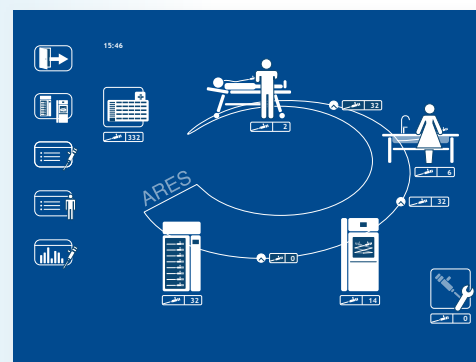
endoscope recognition
correct connection
pressure leak
cycle monitoring
pressure monitoring
flow monitoring
user alert to parameter deviations

Drying and storage:

Endoscope recognition
Scope start and end storage data
Any parameter deviations

Time between different phases

Offsite service of instrument



SteelcoData ARES gives you full traceability of flexible endoscope reprocessing



Process control, Steelcosure

Independent performance verification of your equipment and processes



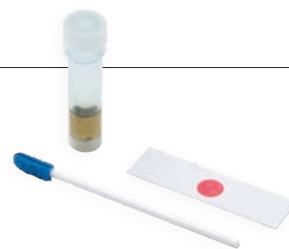
Liquid hydrogen peroxide chemical indicator

The hydrogen peroxide indicator is designed to monitor the process efficacy of Steelco endoscope reprocessors using SteelcoXide liquid hydrogen peroxide in high level disinfection and sterilization cycles.

Steelco offers the choice of liquid hydrogen peroxide high level disinfection and sterilization cycles in their EW range of endoscope reprocessors.

Protein detection test

The SteelcoSure Protein Detection Test is a simple test, detecting residual proteins on surgical instrument and potentially contaminated surfaces by means of a color change in the test solution.



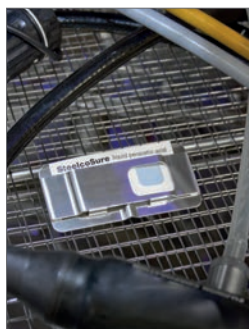
Long Lumen Protein test

The SteelcoSure Protein test is sensitive to 1µg of protein and designed to detect residual proteins on inside channels of rigid and flexible endoscopes and other potentially contaminated lumen instruments by means of a color change in the test solution within 10 seconds at room temperature without requiring incubation. The test utilizes 2.5 meter long and 2.8 mm diameter swab.

Steelco Q-Water BSK

Professional water sampling kit for bacterial check, provides a ready, easy to use assembled sterile kit to enable water samples to be taken in a controlled environment to minimise the risk of accidental sample contamination.





Peracetic acid process monitors

Peracetic acid process indicator for use in the Steelco EW range of endoscope reprocessors. The color change indicates the presence of peracetic acid.

Process Challenge Device (PCD)

Steelco process challenge device (PCD), customized for Steelco Endoscope Washer Disinfectors range (EW series), is an auxiliary device for routine cleaning efficacy monitoring.

Steelco process challenge device must be used with Steelco Cleaning Indicators in conjunction with Steelco Endoscope Washer Disinfectors range (EW series).

The purpose of the system is to simulate a contaminated flexible lumen device according to ISO 15883-5 and HTM 01/06.



SteelcoXide Liquid Peroxide Biological Indicator

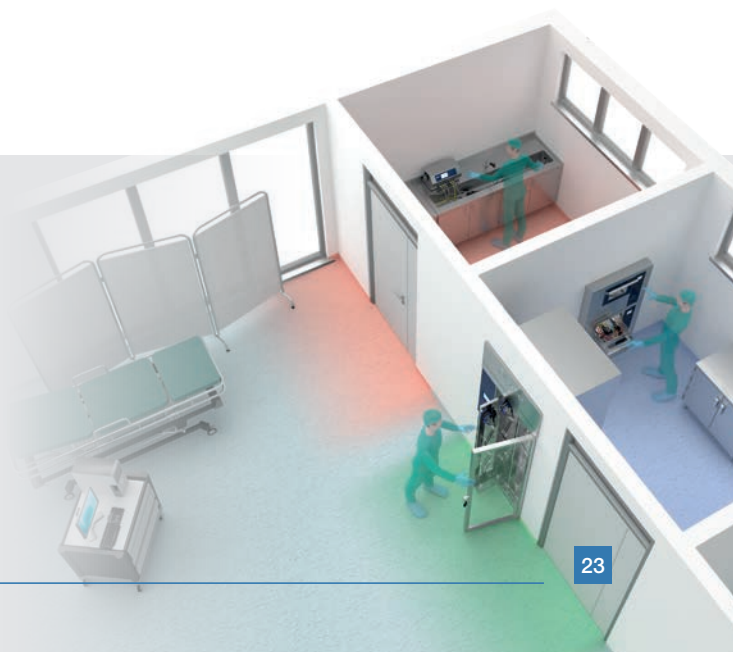
SteelcoXide Liquid Peroxide Biological Indicator is designed to monitor "Steelco EW series" liquid sterilization process utilizing SteelcoXide H_2O_2 in liquid phase as a sterilizing agent. The indicator is developed to react on two main components

of the process: sterilizing power of liquid peroxide and mechanical action of the machine, combined in the endoscope washer for the physical elimination of spores.

Safe and user friendly solutions for clinics



A catalog showing all is needed to properly fit out a small endoscopy facility: EPW 100 prewash, EW 1 reprocessor in all its configurations, ED 100/150 storage.





Miele Group Member

ARES - flexible endoscope automated reprocessing system



Dental washer disinfectors

Flusher disinfectors

Steam sterilizing autoclaves



Washer disinfectors for central sterile supply departments

Laboratory glassware washer disinfectors



Washing and sterilizing systems for life science and pharmaceutical applications

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Products offered for sale may differ from those described or illustrated in this brochure due to later production changes or/and optional configurations. The products and technical specifications are subjected to change without prior notice. Please consult your Steelco dealer for the latest information.