

## Washers, disinfectors and automated systems for animal cages, feeding bottles and fish tanks



**Steelco**  
*your partner in infection control*



*“For the Environmentally conscious”*



## Washers, disinfectors and automated systems for decontamination of animal cages, feeding bottles and fish tanks

Steelco's experience and understanding of the workflow within the smallest facility to the largest research centre enables us to offer the safest and most cost effective solutions for your staff to work in, enabling them to provide the cleanest conditions possible for animals in their care.

Our range of solutions includes:

**Tailor made facility design  
to best meet individual customer needs**

**From small stand alone units  
to automated high capacity washers**

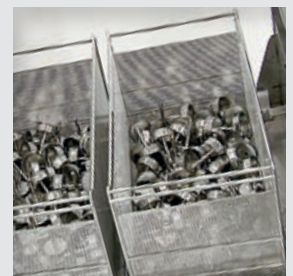
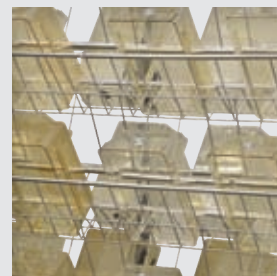
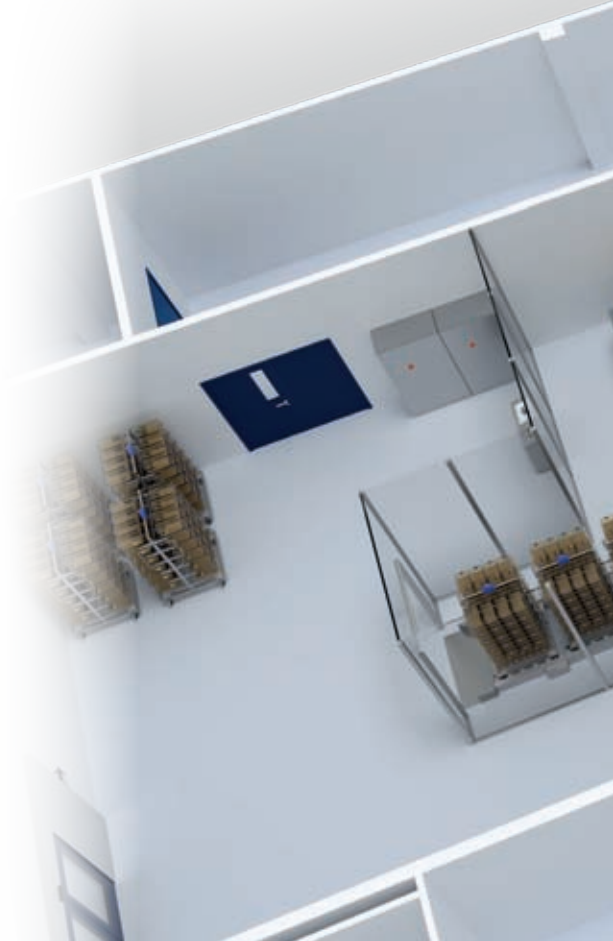
**Feeding bottle washing systems**

**Bedding systems**

**Tailor made automation solutions**

**Environmental control systems**

Steelco's close collaboration with leading establishments enables it to offer solutions that are recognised for their design, reliability, ergonomics, quality, operator safety, allergen protection and low running costs.

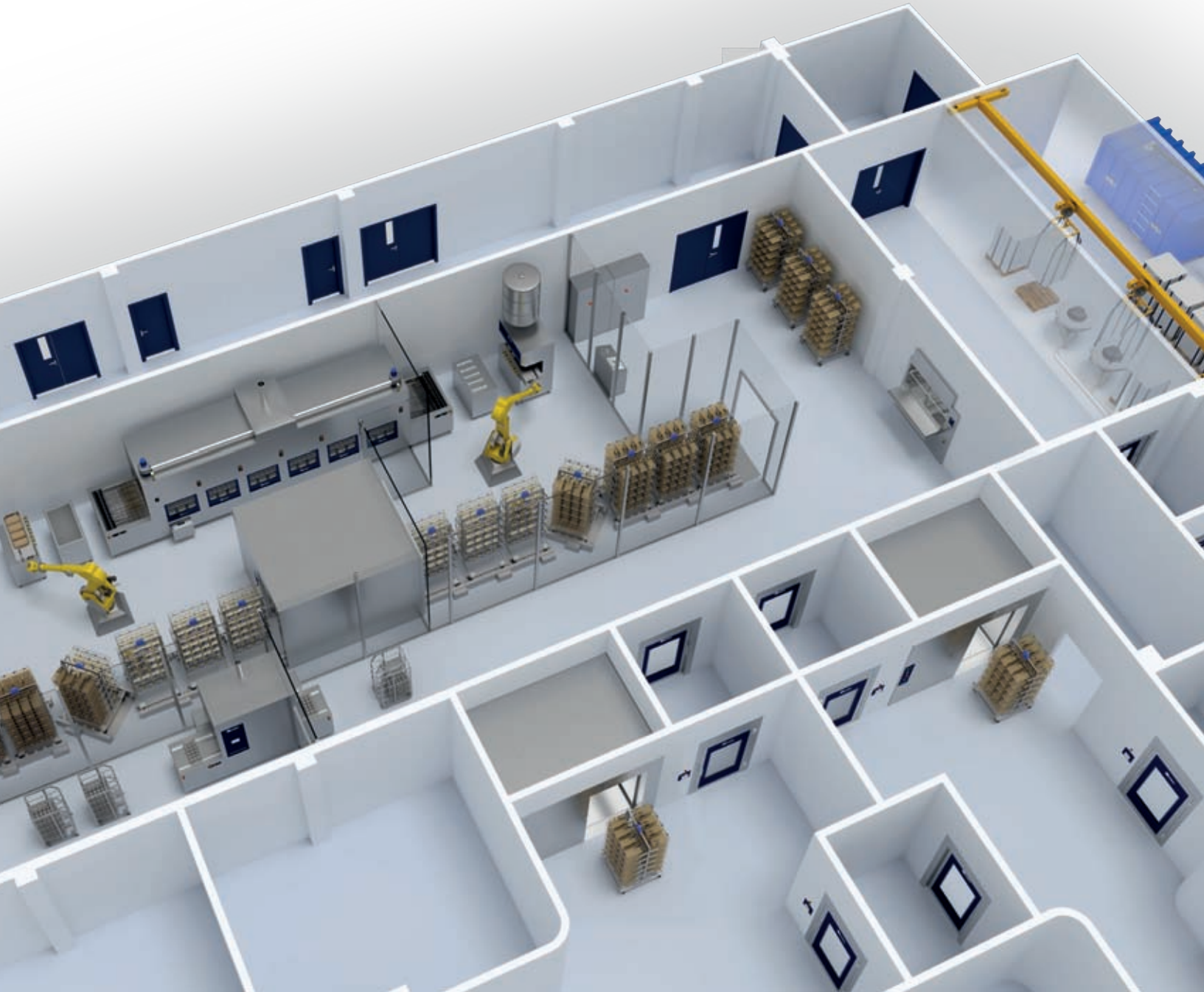






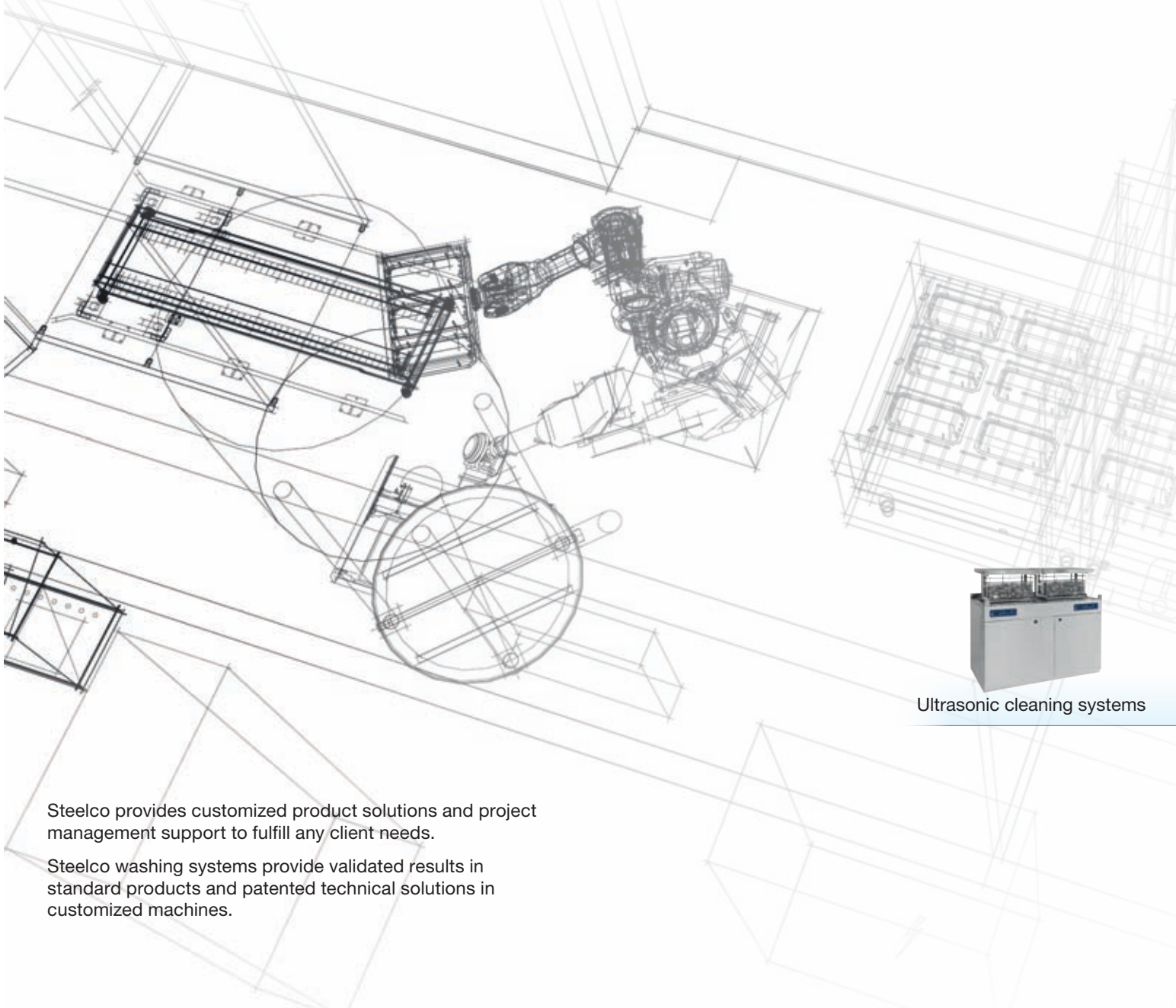
“For the Environmentally conscious”

Constant improvements and innovations lead **Steelco** products to run economically and reach a higher level of environmental compatibility.





## Washers, disinfectors and automated systems for decontamination of animal cages, feeding bottles and fish tanks



Ultrasonic cleaning systems

Steelco provides customized product solutions and project management support to fulfill any client needs.

Steelco washing systems provide validated results in standard products and patented technical solutions in customized machines.

### dedicated to



animal cages - fish tanks



animal cages - fish tanks  
lids, components and  
other smallware



feeding bottles



trolleys/pallets

### operating mode



fully automatic



semi automatic



manual

### washing chamber



AISI 316L



## Product overview:



Cages and racks washers

Cage and feeding bottle washers



Automated tunnel washer



Bedding disposal and dispensing

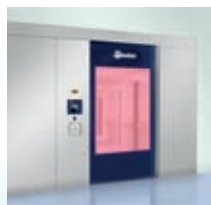


Feeding bottle washing, decapping, filling and recapping systems

Automated feeding bottle washing system



Air showers



Safe lock doors



Decontamination locks

small washers

tunnel washers

bedding systems

feeding bottle washers

environment control

### machine main functions



washing



sanitization by rinsing at 85°C - 185°F



decontamination



ultrasonic cleaning



hot air drying



pass through safe barrier



de- capping



emptying



filling



re- capping



disposal



dispensing

### available upgrades



productive or functionality upgrade with modules



productive upgrade with robotized or automated loading - unloading



## AC 1200 - AC 1300 - AC 1400

Animal feeding bottle, animal cage and fish tank



**AC 1400**  
pass-through  
version available



**AC 1300**  
single door



**AC 1200**  
pass-through  
version available

Steelco CBW equipment cleans and disinfects all types of feeding bottles, animal cages and fish tanks.

Steelco CBW equipment assures outstanding washing and sanitization results.

Final rinse temperature is guaranteed to reach 85°C/185°F **thanks to an independent rinsing circuit.**

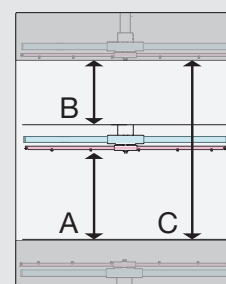


**AC 1400**  
Aquatic Tank Processing

*Specalized version and process to ensure the elimination of any residual biofilm and algae left in aquatic tanks.*

## Washing chamber capacity

	AC 1200			AC 1200/2			AC 1300			AC 1400			AC 1400/2		
Chamber dimensions	W	D	H	W	D	H	W	D	H	W	D	H	W	D	H
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	30.12	35.43	44.49	30.12	38.19	44.49	61.02	28.74	44.49	61.02	35.43	44.49	61.02	40.16	44.49
Useful heights	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	13.58	13.58	31.10	12.00	12.00	-	13.58	13.58	31.10	13.58	13.58	31.10	13.58	13.58	-





# AC 1200 - AC 1300 - AC 1400 - Key features

- Drop down / vertical sliding loading door.  
**Pass-through configuration available for AC 1400 and AC 1200.**
  - **Chamber and doors entirely made of stainless steel AISI 316L**, external body made of stainless steel AISI 304.
  - Rotating spray arms positioned on the top, middle and bottom levels of the washing chamber.
- Independent rinsing circuit.
  - Multi stage filtering system.
  - Self-cleaning filter for the recirculation of the washing water.
  - Washing pump pressure switch.
  - Disinfection by rinsing at 85°C/185°F.
  - Tank and sump temperature check.
- Equipped with 1 chemical dosing pump as standard, controlled by a micro-processor which allows to set the optimal dosing level for each type of cycle.
  - The detergent cabinet level is monitored and is fitted with a low level alarm.
  - RS 232 port for printer connection.

## Optional features

- 2<sup>nd</sup> Chemical dosing pump
  - Flow meter for the checking and the validation of the dosing volume of the chemical
  - Knock down configuration
- Steam or hybrid heating
  - Drain pump
- Exhaust fan
  - Double door pass through version (available for AC 1400 and AC 1200)
- Integrated printer ST2

### Separated washing and rinsing circuits

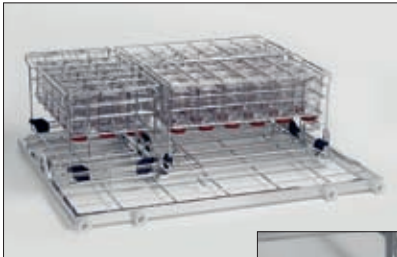


### Multistage water filtering system



Self-cleaning filter for recirculation of the washing water.

### Feeding bottle washing carts



Detail of bottle dedicated spray jets



Easy access with sliding electric control panel



Detergent cabinet with capacity of up to two 10 lt. / 2.64 US gal containers

## Productivity per cycle\*

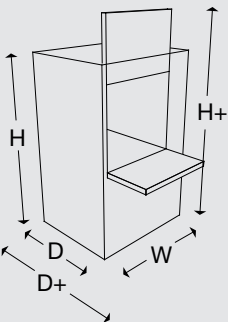
Type of cage	W	L	H	AC 1200	AC 1300	AC 1400
TP 1145	369	156	132	20	40	50
TP GM500	375	197	130	16	30	40
AT Type 1	396	165	176	20	40	50
AT type 2	362	213	185	12	30	30

\*with dedicated inserts

Bottles	AC 1200	AC 1300	AC 1400
18 bottle positions crates	108	72	108

\*with dedicated washing carts

## Washers dimensions



Single door		W	D	H	D+	H+
AC 1200	mm	1200	1000	1900	1475	2265
	inches	47.24	39.37	74.80	58.07	87.17
AC 1300	mm	1970	830	1900	1305	2265
	inches	69.29	32.68	74.80	51.38	87.17
AC 1400	mm	1970	1000	1900	1475	2265
	inches	77.56	39.37	74.80	58.07	87.17

Double door		W	D	H	D+	H+
AC 1200/2	mm	1245	1030	1900	1475	2265
	inches	49.02	40.55	74.80	58.07	87.17
AC 1400/2	mm	2015	1030	1900	1305	2265
	inches	79.33	40.55	74.80	51.38	87.17



## AC 7000

### Cage and rack washer



The AC7000 series cage and rack washer is a heavy duty, large capacity, hydro-spray washer specifically designed to support the throughput of medium and large size facilities.

The machine is standard equipped with two pre-heating water tanks and two dosage units resulting in great flexibility to set up custom cycles.

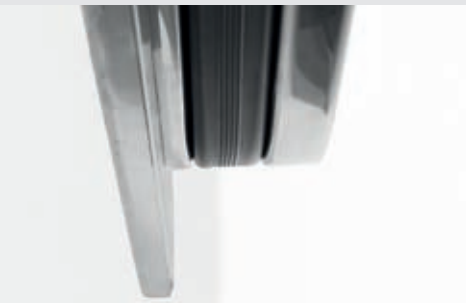


### Models

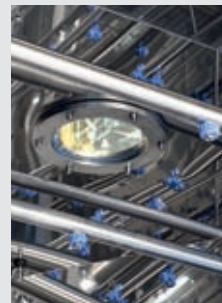
**AC 7000/2** 2076mm (81.73") chamber depth

**AC 7000/3** 3000mm (118.11") chamber depth

### Chamber sealing



### Chamber illumination



AC 7000 access doors are equipped with integral inflatable gaskets in order to provide a sealed chamber for SPF barrier application as well as for decontamination and sanitization cycles.



## AC 7000 - Key features



### "For the Environmentally conscious"

Focused on the environment, AC 7000 washers are manufactured with energy saving systems granting the reduction of energy and water consumption.

- Operator multi language touch screen control with auto-diagnostic check that constantly monitors and displays current cycles status and alarms, allows to optimize the washing process and to personalize machine programs. Up to 65 washing and rinsing programs available: 5 service, 10 memorized and 50 free programs are available.
- AC 7000 is available in single or double interlocked hinged door made of stainless steel AISI 316L with glass inspection window or in the full view glass door version granting easy visual inspection throughout the entire process.
- Both left or right hand door opening versions are available.
- Washing chamber and filter made of s.s.
- AISI 316L, external body of s.s. AISI 304.
- Can be manufactured following GMP requirements including FAT/SAT/IQ/OQ protocols.
- Washing pump pressure control.
- Flush self-cleaning filter for the re-circulation of the washing water.
- Double chemical control dosing system.
- Data storage system and process control.

### Optional

- Up to 6 chemical dosing pumps
- Steam extractor
- Manifold system for trolley docking with spray arms
- Drying system
- HEPA H14 air filter
- Chemical fogging facility
- Thermal disinfection at 90°C.
- HPV - Hydrogen peroxide vapour facility
- Steam sanitization
- Integrated printer
- Full glass door



### Spray nozzles



Detail of standard hybrid plastic/stainless steel nozzles and optional full stainless steel nozzles.

### Oscillating spray arms



Multiple horizontally mounted oscillating arms equipped with spray nozzles.

### Wash chamber floor



The washing chamber floor consists of heavy-duty stainless steel grating. Floor sections are easily removed for cleaning and maintenance.



## AC7000 - Key features

### HPV

The AC 7000's air-tight chamber provides the added flexibility of not only using the unit as a washer but also as a:

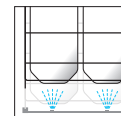
- Hydrogen Peroxide/Chlorine Dioxide decontamination pass-through chamber
- Chemical fogging chamber when fitted with an atomizer spraying disinfectant and compressed air circuit
- Thermal disinfection (clean steam) chamber



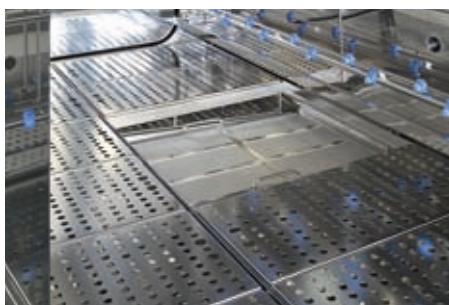
External generator connection

### Manifold system

Automatic manifold for trolleys equipped with spray arms or injection systems



### Water filtration

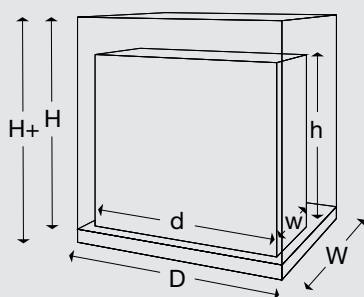


The AC 7000 is equipped with a 3 level multi filtration system. The gross and fine filter placed in the bottom of the washing chamber remove particles respectively than 2mm and 0.9mm (0,08" and 0.035").



The extra fine filter, placed in the inlet of the wash tank, is a back flush self cleaning filter for the re-circulating washing water that traps particles larger than 0,5mm (0.02").

## Washers dimensions



		external dimensions				useful chamber dimensions		
		W	D	H	H+	w	d	h
<b>AC 7000/2</b>	mm	2200	2314	2440	2590	1100	2076	2150
	inches	86.61	91.10	96.06	101.97	43.30	81.73	84.65
<b>AC 7000/3</b>	mm	2200	3240	2440	2590	1100	3000	2150
	inches	86.61	127.56	96.06	101.97	43.30	118.11	84.65
<b>AC 7000 NHP</b>	mm	2350	2488	2720	2970	1200	2240	2350
	inches	92.52	97.95	107.08	116.93	47.24	88.19	92.52





## AC 7000 NHP

### Cage and rack washer

The **AC 7000 NHP** series cage and rack washer is a heavy duty, large capacity, hydro-spray washer specifically designed to support the throughput of medium and large size facilities with large animal cages and racks.

The machine is equipped as standard with three pre heating water tanks and two dosing units resulting in great flexibility in cycle setting.



large washers

- Operator multi language touch screen control with auto-diagnostic checking that constantly monitors and displays current cycles status and alarms, allows to optimize the washing process and to personalize cycle programs. Up to 65 washing and rinsing programs available: 5 service, 10 memorized and 50 free programs.
- AC 7000 NHP is available in single or double interlocked hinged door versions made of stainless steel AISI 316L with glass inspection window. Left or right hand door opening versions available.
- Washing chamber and filter made of s.s. AISI 316L, external body of s.s. AISI 304.
- Can be manufactured following GMP requirements including FAT/SAT/IQ/OQ protocols.
- Wash pump pressure control.
- Flush self-cleaning filter for the re-circulation of the washing water.
- Double chemical control dosing system.
- Data storage system and process control.

#### Optional

- up to 6 chemical dosing pumps
- HEPA H14 air filter
- Chemical fogging facility
- Integrated printer
- Manifold system for trolley docking with spray arms
- HPV - Hydrogen peroxide vapour facility
- Steam sanitization

#### Inspection window



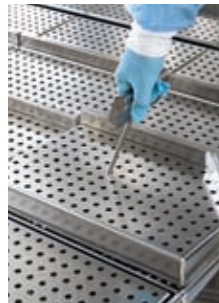
The inspection window in the inner side of the door is protected from the load

#### Washing system



Multiple horizontally and vertically mounted oscillating arms equipped with stainless steel spraying nozzles.

#### Loading grid



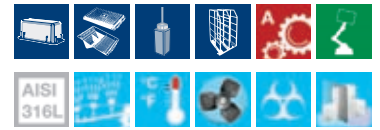
The loading floor is made of AISI 316L stainless steel easily removable sections to reach the bottom of the washing chamber for cleaning and filter maintenance.  
Adjustable rail guides to match the carts and rack castors lay out.





## AC 8000

### Cage and rack washer



Steelco cage and rack washers are specifically designed to support the throughput of medium and large size facilities.

This sliding door washer is as standard equipped with two pre-heating water tanks and two dosing units resulting in great flexibility to set up custom process cycles.



### Models

- AC 8000/2** 2240mm (88.18") chamber depth
- AC 8000/3** 3000mm (118.11") chamber depth



#### Lifting platform

The need for a deep pit has in the past been a challenge for the installation of a rack washer, especially in refurbishment projects. **Steelco's lifting platform** assures the **same ergonomics and operator safety** as a pit installed rack washer but... **without the need of a pit.**

#### Spray nozzles







## "For the Environmentally conscious"

Focused on the environment, AC 8000 washers are manufactured with energy saving systems reducing energy and water consumption.

- Operator multi language touch screen control with auto-diagnostic checking that constantly monitors and displays current cycles status and alarms, allow to optimize the washing process and to personalize programs on board of the machines. Up to 65 washing and rinsing programs available: 5 service, 10 memorized and 50 free programs.
- AC 8000 is available in single or double interlocked sliding door versions made of stainless steel AISI 316L with glass inspection window or in the smart full glass door version granting easy visual inspection throughout the entire process.
- Left or right hand door opening options are available.
- Washing chamber and filter made in s.s.
- AISI 316L, external body in s.s. AISI 304.
- Can be manufactured following GMP requirements including FAT/SAT/IQ/OQ protocols.
- Washing pump pressure control.
- Flush self-cleaning filter for the re-circulation of washing water.
- Double chemical control dosing system.
- Data storage system and process control.

### Optional

- 3<sup>rd</sup> Chemical dosing pump
- Steam extractor
- Manifold system for trolley docking with spray arms
- Up to 6 chemical dosing pumps
- Drying system
- HEPA H14 air filter
- Chemical fogging facility
- Thermal disinfection at 90°C.
- HPV - Hydrogen peroxide vapour facility
- Steam sanitization
- Integrated printer
- Full glass door





## AC8000 - Key features

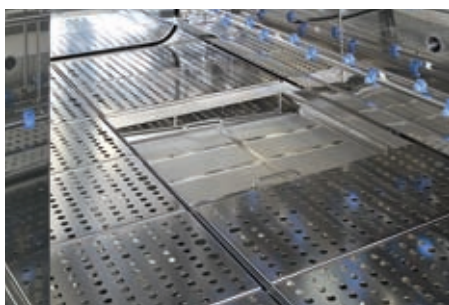
### HPV

The AC 8000's air-tight chamber provides the added flexibility to be able to use the unit in addition to washing as a:

- Hydrogen Peroxide/Chlorine Dioxide decontamination pass-through chamber
- Chemical fogging chamber when fitted with an atomizer spraying disinfectant and compressed air circuit
- Thermal disinfection (clean steam) chamber



### Water filtration

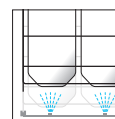


The AC 8000 is equipped with a 3 levels multi filtration system. The gross and fine filter placed in the bottom of the wash chamber remove particles larger than 2mm and 0.9mm (0,08" and 0.035") respectively.



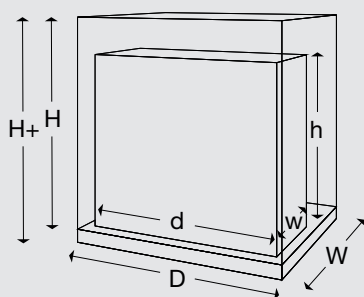
The extra fine filter, placed in the inlet of the wash tank filling, is a back flush self cleaning filter for the re-circulating wash water traps particles bigger then 0,5mm (0.02").

### Manifold system



Automatic manifold for trolleys with spray arms or injection systems

## Washers dimensions



		external dimensions				washing chamber dimensions		
		W	D	H	H+	w	d	h
<b>AC 8000/2</b>	mm	2500	2550	2470	2650	1000	2240	2150
	inches	98.42	100.39	97.24	104.33	39.37	88.18	84.65
<b>AC 8000/3</b>	mm	2500	3300	2470	2650	1000	3000	2150
	inches	98.42	129.92	97.24	104.33	39.37	118.11	84.65



## AC7000 and AC 8000 - Presentation racks



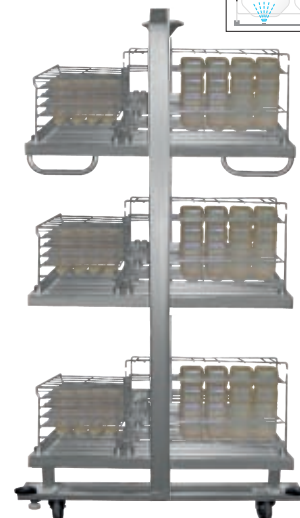
C1009



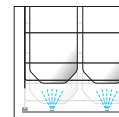
C762



C793



C906



large washers

	Description		W	D	H
<b>C793</b>	2 level rack for large size containers	mm	840	1500	1655
		inches	30.07	59.05	65.15
<b>C864</b>	2 level rack for large size containers	mm	840	1020	1850
		inches	30.07	40.15	72.83
<b>C762</b>	3 level rack for large cages with lids	mm	840	1445	1655
		inches	30.07	56.89	65.15
<b>C1028</b>	4 level weighted presentation rack	mm	840	1030	2050
		inches	30.07	40.55	80.71
<b>C1009</b>	4 level weighted presentation rack	mm	840	2000	2050
		inches	30.07	78.74	80.71

	Description		W	D	H
<b>C865</b>	4 level rack for large cages with lids	mm	840	1020	2000
		inches	30.07	40.16	78.74
<b>C950</b>	4 level rack for large cages with lids	mm	840	2120	2000
		inches	30.07	83.64	78.74
<b>C796</b>	5 level rack for cages with lids	mm	840	950	1935
		inches	30.07	37.40	76.18
<b>C906</b>	Injection rack for bottles (18 crates) automatic connection	mm	840	1460	2025
		inches	30.07	57.48	79.24
<b>C1078</b>	Injection rack for bottles (18 crates) manual connection	mm	840	1460	1400
		inches	30.07	57.48	55.12

## Steelco AC 7000 and AC 8000 productivity per hour examples

Cage type	W	L	H	C1009	C865	C796	C762
TP 1284L	365	207	140	720	320	400	360
TP 1291H	425	266	185	560	240	300	300
TP 1290	425	266	155	560	240	300	300
TP 1500	480	385	210	400	160	200	180
TP 1145	369	156	132	960	480	500	480
TP 2000	610	435	215	320	160	200	180
TP GM500	375	197	130	800	320	400	420
TP GR900	405	355	230	400	160	200	180
TP GR1800	405	355	230	400	160	200	180

Cage type	W	L	H	C1009	C865	C796	C762
AT Type 1	396	165	176	960	400	500	480
AT type 2	362	213	185	720	320	400	360
AT type 3	443	278	198	560	240	300	300
AT type 3H	443	278	233	560	240	300	300
AD Dura Mouse	292	127	184	1200	560	600	660
AD Flex Air	300	224	147	640	320	300	360
AD Large Mouse	476	260	152	560	240	300	300
AD Rat	476	260	203	560	240	300	300
NKP M1	330	150	130	972	449	468	505

Cage type	W	L	H	C1009	C865	C796	C762
NKP M3	480	150	130	972	449	468	505
NKP MB1	450	280	130	524	224	281	281
NKP RC1	560	380	170	374	150	187	168
Isoseal Cage	390	215	190	673	299	374	337
Sealsafe 1284	365	207	140	673	299	374	337

cage bottom only, 360 seconds cycle

**C865**, 2 trolleys in std. chamber, productivity can be doubled.

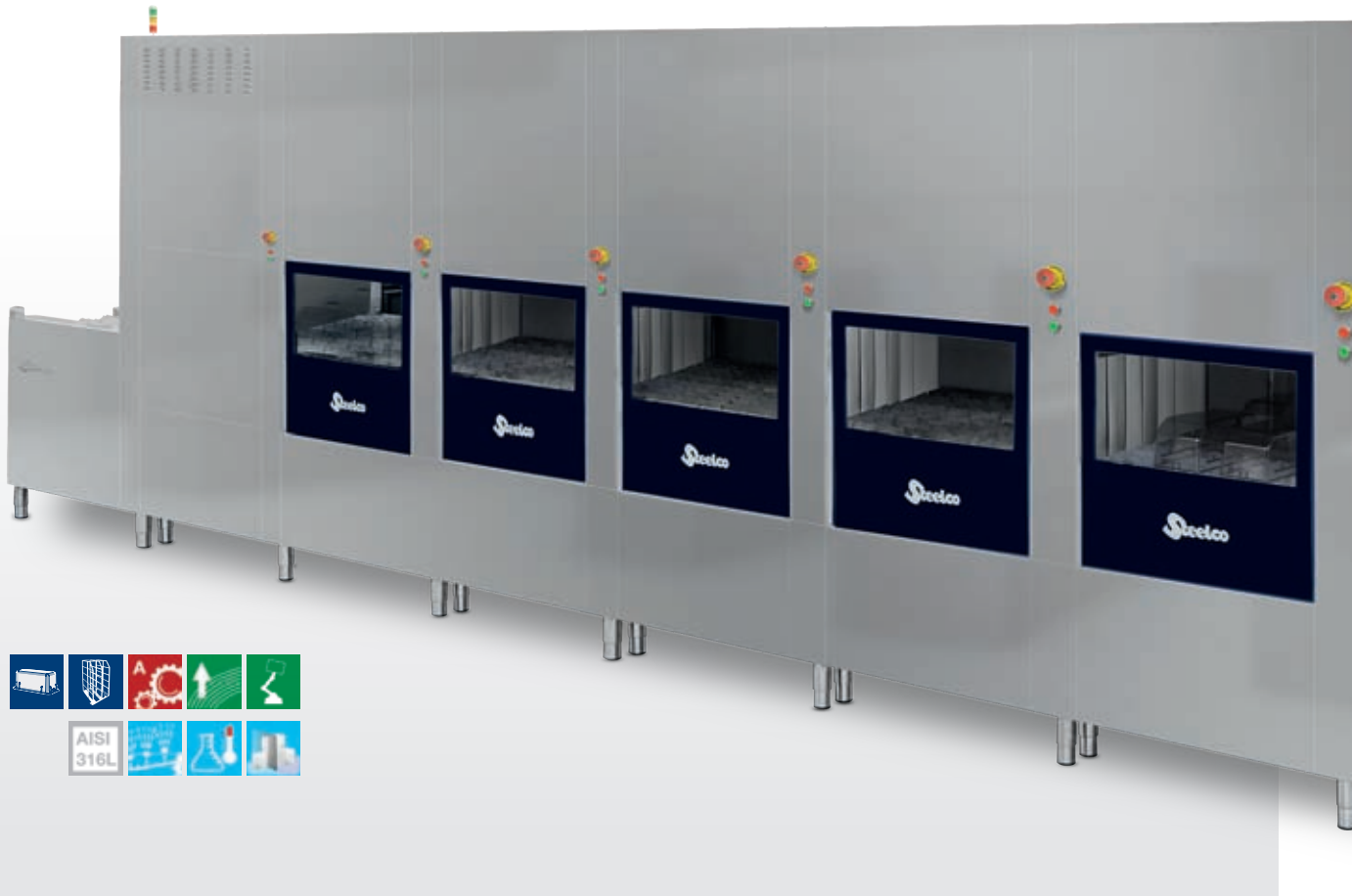
**C796** and **C762**, 2 trolleys in 3000mm (118.11") chamber, productivity can be doubled



## MITO AC 3500

### Automated tunnel washer

To meet the growing demand of compact systems for the automatic processing of animal cages, MITO AC 3500 provides an integrated and flexible solution for the processing of almost any type of commonly available cages on the market.



### AC 3500 modules

The system is composed of modules with dedicated functions:

- pre wash
- acid/alkaline wash
- rinse and final rinse
- blow down
- hot air drying (single or double size module)

Modules can be added or removed for customized solutions.

Each tunnel chamber is provided with a vertical sliding glass door for visual inspection.



Animal cages and other miscellaneous items are placed into a loading conveyor which moves through the tunnel, passing through 5 processing phases:

- 1 pre-wash
- 2 chemical wash
- 3 pre-rinse
- 4 final fresh hot water rinse
- 5 hot air drying system

AC 3500 has been developed with water consumption reduction in mind. To that aim, the final rinse is then used in the pre-rinse phase and in turn the pre rinse water is used in the pre wash phase.

AC 3500's innovative water saving features, enable it to maximize water flow whilst at the same time minimize water consumption, thereby saving your facility money.

#### Control panel



Validated cleaning and disinfection is obtained by selecting the appropriate washing cycle, temperature and detergents. Process parameters are adjustable and can be adapted to customer needs through the HMI control panel.

#### Loading conveyor



The AC 3500 is available in 900mm (35.43") and in wider 1100mm (43.31") belt width versions.

#### Robotic loading



The system can be integrated with robotic technology for loading and unloading procedures. Robotic integration can be implemented later or on existing manual tunnel washing systems. The AC 3500 is additionally suitable for the sanitization of trays and/or cage transport pallets.





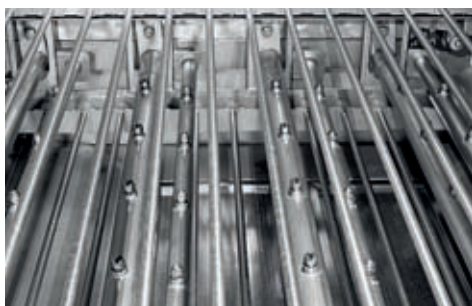
## MITO AC 3500 - Key features

- **Chambers and filters made of stainless steel AISI 316L.**
- Visual inspection inside the chamber is possible at any time, thanks to the HST glass windows.
- Extremely smooth chamber surface, welded without seams assures a perfect drain.
- AC 3500 combines high pressure and flow rate to achieve outstanding washing and rinsing performance of up to 750 cages per hour.

### Optional

- Self cleaning rinsing filter
- Monitored alkaline detergent system
- Monitored acid detergent system
- Waste separation into pre-wash tank
- Steam condenser
- Automatic tank descaling system
- Rinsing agent injection
- Exhaust fan
- pH neutralizing

### Washing/rinsing chamber



Oscillating spray arms and separate rinsing circuit. Dedicated water jets for high temperature final rinse.

### Prewashing chamber



Oscillating pre-wash spray jets.

### Loading table



900mm (35.43") or 1100mm (43.31") belt width versions.



Hot air drying chamber



Easy access cage debris filter.

## Module dimensions

		W	D	H
<b>modules</b>	mm	1350	1000	2380
900mm (35.43") belt w.	inches	53.15	39.37	93.70
<b>tables</b>	mm	1350	1100	975
900mm (35.43") belt w.	inches	53.15	43.31	38.38
<b>modules</b>	mm	1550	1000	2380
1100mm (43.31") belt w.	inches	61.02	39.37	93.70
<b>tables</b>	mm	1550	1100	975
1100mm (43.31") belt w.	inches	61.02	43.31	38.38

## Productivity per hour

cage type	W	L	H	900mm belt	1100mm belt
TP 1284L	365	207	140	480	720
TP 1291H	425	266	185	360	360
TP 1290	425	266	155	360	360
TP 1500	480	385	210	120	240
TP 1145	369	156	132	720	720
TP 2000	610	435	215	120	120
TP GM500	375	197	130	600	600

cage type	W	L	H	900mm belt	1100mm belt
TP GR900	405	355	230	240	240
TP GR1800	405	355	230	240	240
AT Type 1	396	165	176	720	720
AT type 2	362	213	185	480	720
AT type 3	443	278	198	360	360
AT type 3H	443	278	233	360	360

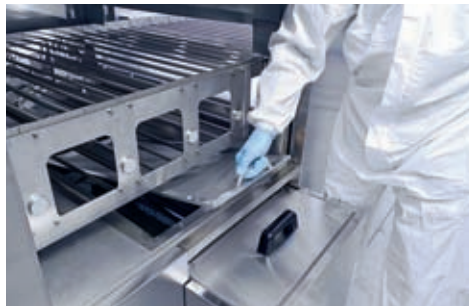
60 seconds steps

## Smart water filtering system a way to increase productivity

Clogged filters is one of the main issues facing operators when processing cages. The amount of solid residues can easily clog the dedicated nozzles.

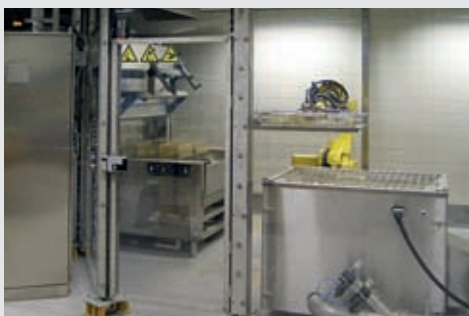
Steelco has developed a system for the fast and easy access to filters for their maintenance.

The main filter in the prewash chamber is flushed by flowing water that helps to keep it's surface clean. This way, a large amount of residues is collected by a filter which is easily accessible from the outside of the washer.



large washers

## MITO AC 3500 - installation examples





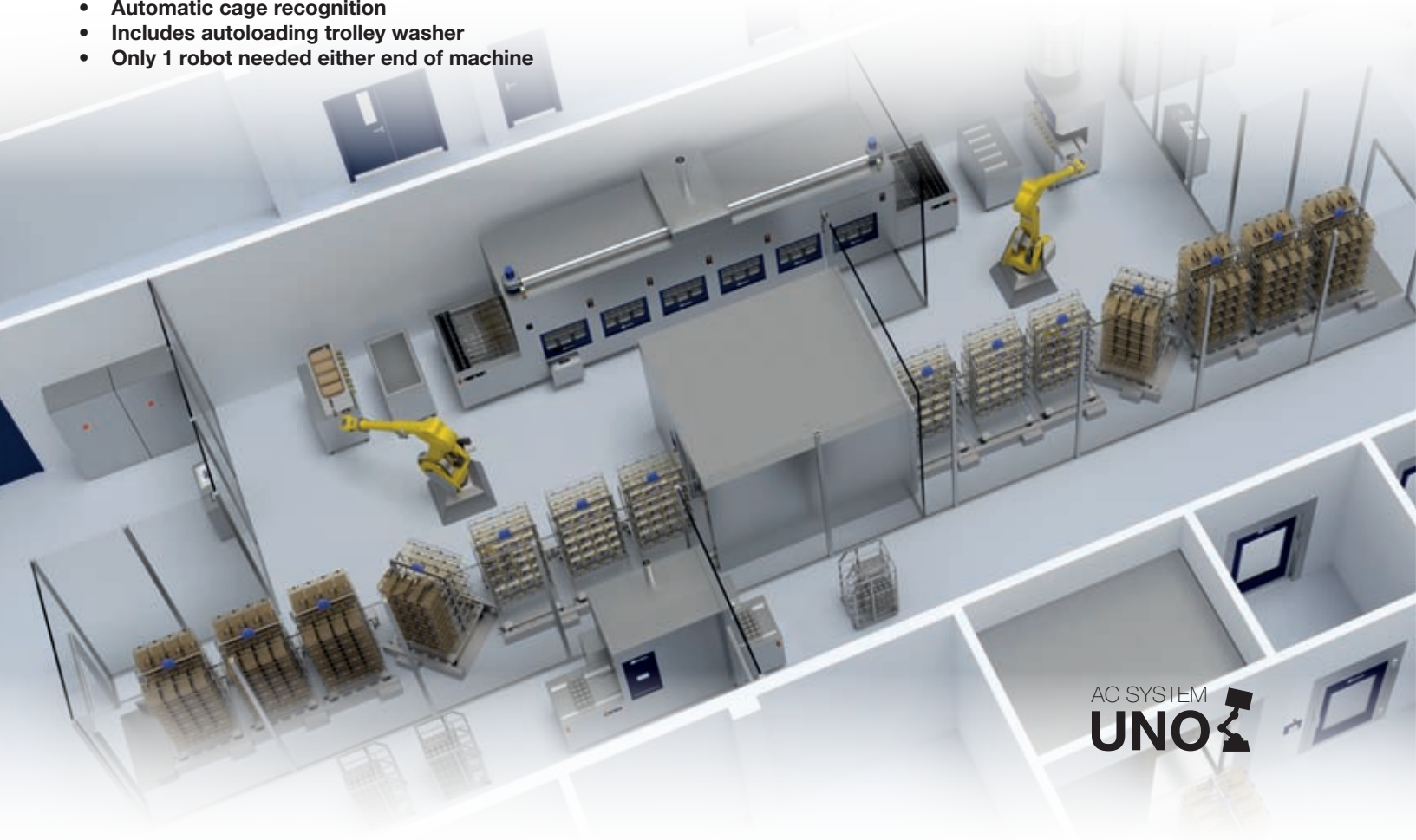



## AC SYSTEMS

AC SYSTEM is the automated solutions range from Steelco for Life Sciences.

The AC SYSTEM UNO configuration is a flexible upgradeable system for reprocessing animal cages:

- **No special cage support grids**
- **Automatic cage recognition**
- **Includes autoloading trolley washer**
- **Only 1 robot needed either end of machine**



AC SYSTEM  
**UNO** 

## Steelco TeleSupport - connection to the washing central

With the tele-support software/service, a remote operator is able to verify the full functionality of installed devices.

### Steelco TeleSupport main functions:

- Checking full system integrity and equipment functioning
- Access and management of the cameras to monitor the system.
- Total access to the parameters of the machines allowing the management of the washing programs (times, temperatures, chemical dosing...) and direct corrective actions and/or software updates.
- Synchronous access to the parameters of the machine and all robotic automations installed.

### System access:

Access to the Steelco TeleSupport system is often shared between Steelco, facility management and the user.

For confidentiality reasons, access can be restricted to certain periods or special situations.





## Automated loading/unloading system

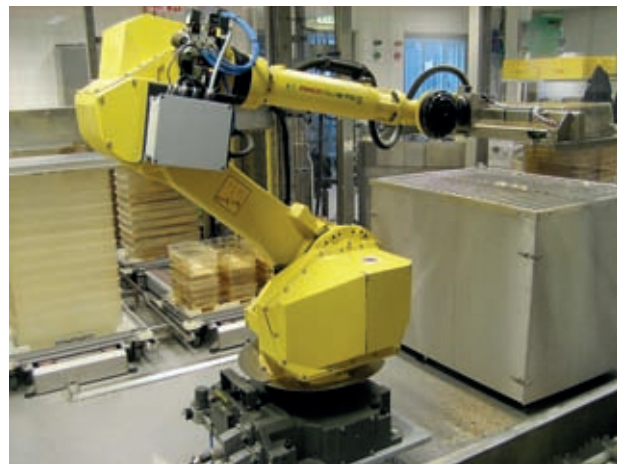
Modern facilities for animal laboratory research require automation to deal with the increasing demand of productivity. Steelco's machines can be provided with an automation system even as a future upgrade.

### The automation system features:

- Transport pallets for the handling of stackable cages
- Automatic conveyors for loading and unloading stations
- Programmed robots for the emptying and loading of dirty cages on the tunnel washer belt as well as picking up, filling with new bedding and stacking them on cage transport pallets
- Control station in the loading zone

Trays and/or pallets are placed on the machine conveyor belt.

In case of integration with an automated system several HMIs are included to make the system as user friendly as possible.



## Pallet cage system

Plastic separators for trays enable compatibility of our pallet transport solution with most existing cage systems.

Customized solutions are available to meet end user needs.



## Steelco SuperVisor - data management and remote monitoring of connected devices

SSV software verifies the functionality of the system through an intuitive graphic interface to allow immediate verification of:

- Device status, **alarms**, blocks
- **Data** logging of **consumption**
- Data logging of alarms
- **Machine productivity** and **statistics**

Steelco SuperVisor software allows data export in standard formats

### Machine productivity and statistics

If the cage reprocessing system of the facility is equipped with an RFID system to identify the cage transport pallets, productivity statistics can be obtained for any cage model type.

### Machine documentation

The main screen of the software also allows quick access to the technical documentation of the machine including: manuals, hydraulic - pneumatic - electrical system schematics, piping & instrumentation diagram.





## Bedding systems for animal cages

Steelco's design department can liaise closely with customers to develop custom made solutions for new projects or renovation of existing facilities.

**1** Bedding dump station

**2** Tunnel washer

**3** Bedding dispenser

**4** Filling funnel

**5** Storage silo

**6** Vacuum units

**7** Pre separators

**8** Dumpster

**9** Vacuum points

Since the system already features a waste side vacuum, additional vacuum points to assist operators can be specified.



### 1 Dump station for bedding waste.

The dump station is available in either manual or robotic versions. It is fitted with a detachable grid at the top as well as a dust extractor in order to minimize the operator's exposure to allergens. The robotic version is equipped with a fine shredder in order to reduce the risk of vacuum system clogging.

### 3 Bedding dispenser.

The bedding dispenser is available either in manual or robotic versions. Both models are equipped with a touch screen interface. The bedding dispenser is fitted with a system that avoids any deposit of dust and allows the emptying of any residue formed on the bottom part of the dispenser.

### 4 Filling funnel for clean bedding.

The filling funnel serves as a loader for clean bedding and is connected to a storage silo through a suction tube. The funnel is fitted with a sensor which indicates the presence of clean bedding availability.

### 2 Tunnel washer.



#### 5 Storage silo.

The storage silo can hold clean bedding sufficient for one day and is directly connected with the dispenser through a suction tube. The silo is provided with low and high level sensors of clean bedding availability.

#### 6 Vacuum and filter units.

Steelco bedding systems are provided with a three stage vacuum unit with pressured air which allows bedding transport, its dump and the removal of dust deposit.

#### 7 Pre separators.

Steelco bedding systems are supplied with two pre separators in order to empty the waste bedding into a standard dumpster. The two pre separators work in turn. This configuration allows a homogeneous filling of the dumpster, preventing it from clogging.

#### 8 Dumpster.

We use standard dumpsters, wheeled bins etc. with small modifications. We try to adapt the system to local standards. We try to avoid solutions where the dumpster is a part of the vacuum system as this causes other problems such as odours, small volumes and high costs.





## Dumping station with shredder for vacuum system connection



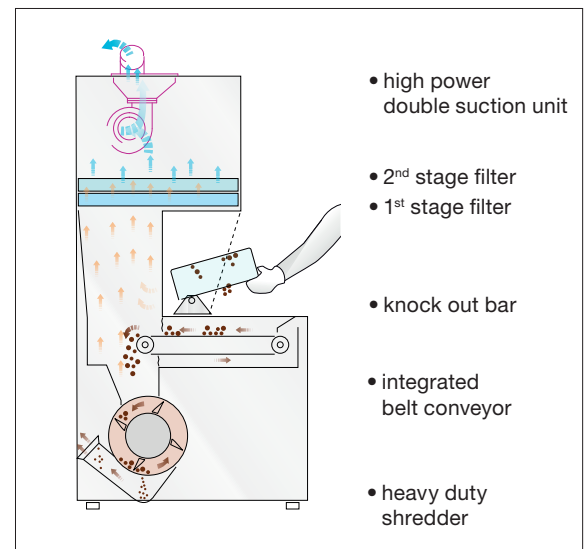
Steelco dumping stations with shredder are available as stand alone units to be connected to an existing vacuum system.

The device is suitable for all type of bedding (dry or wet), food and enrichments with no clogging risk.

The dumping stations can be equipped with an allergene containment unit to provide a high degree of air cleanliness around the operator.



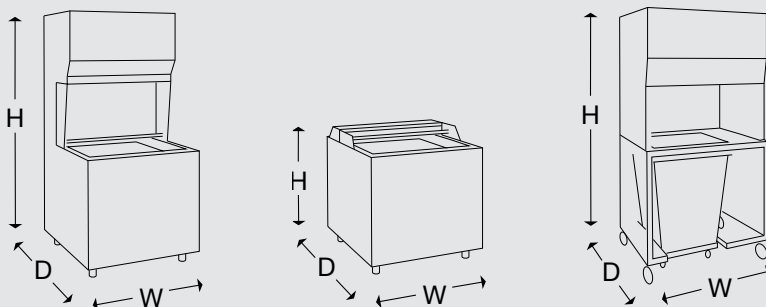
Standard configuration for integration with centralized vacuum systems for the containment of allergens.



### Optional

- Allergene containment unit

## Dumping station dimensions



Dumping station (with shredder)		W	D	H
with suction unit	mm	1200	1100	2100
	inches	47.24	43.31	82.68
without suction unit	mm	1200	1100	1050
	inches	47.24	43.31	41.34
Dumping station (mobile unit)				
and suction unit	mm	1200	850	2100
	inches	47.24	33.46	82.68



## Dumping station mobile unit



Dedicated for use in small research facilities or as temporary device, this mobile dumping station is characterized by the usual attention to ergonomics typical of Steelco products.

The allergene containment unit offers the same high level operator protection as the shredder equipped version.

## Bedding dispenser stand alone unit



Steelco's bedding dispenser provides accurate dispensing of any kind of free flow bedding.

In order to protect the operator from dust exposure, the dispenser is equipped with an efficient air suction system.

### Key features

- **Structure and panels made of stainless steel AISI 304.**
- Standard equipped with 2 dispensing ports.
- Suitable for conveyed filling as well as manual bedding refill at ergonomic height.
- Soft touch control panel with LCD display and up to 40 pre set quantity programs

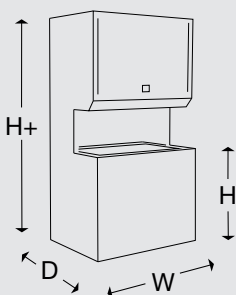
#### Optional

- configuration with more than 2 dispensing ports

## In line dispenser with cage inverter

In addition to the stand alone bedding dispensers, Steelco can provide in-line dispensing solutions connected with a centralized vacuum system and allergene containment unit.

In a high productivity solution, the in line dispensing system is normally integrated with the automatic cage inverter. This device automatically inverts upside down cages coming out from a tunnel cage washer. The automatic system is designed to be compatible with the different type of cages and to align them perfectly for the next bedding dispensing phase.



Bedding dispenser	W	D	H	H+
mm	1000	750	850	1950
inches	39.37	29.53	33.46	76.77





## MITO FBS

Semiautomatic feeding bottle washing with integrated filling system

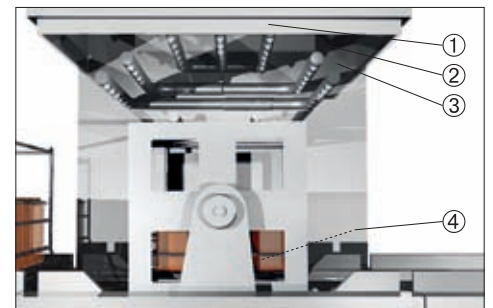


MITO FBS **automatically empties, washes, rinses and fills 18 bottles per cycle.**

This workstation is suitable for small facilities, providing a complete **bottle and cap** reprocessing solution on a cost effective budget.

MITO FBS is a modular system and can be configured of multifunctional loading and unloading tables and accessories.

### The core of the system



A rotating system enables automatic bottle emptying, washing, rinsing and filling.

Water distribution system:

- ① filling system
- ② top rinsing system
- ③ washing system
- ④ bottom rinsing system

### MITO FBS



### bottle emptying station



## Bottle treatment



Loading of the bottle crates



Rotation for bottle emptying, washing and rinsing



Back rotation for bottle filling



Bottle filling



Caps crate rotation forward - backward during the wash phase



Unloading of the caps crate

## Caps treatment

# MITO FBS - Key features

## MITO FBS

- Chamber entirely made of stainless steel AISI 316L.
- Independent washing and rinsing system.
- Individual nozzles for full bottles coverage during washing/rinsing phases .
- Disinfection by rinsing at 85°C/185°F.
- Washing water filtration system to protect the recirculation and drain pumps from debris. Easily removable water filtration system.
- Three default settings for bottle filling.
- Microprocessor control system with RS232 port for external connection. LCD Display control panel, provided with up to 40 programs capacity.

## Manual de-capper

- Patented individual cap remover.

## Bottle dripping station

- Serves as unloading table for the MITO FBS washing system.
- The top surface is made of AISI 316L stainless steel and slopes towards a central drain.
- Access to the lockable bottom storage.

## Bottle emptying station

- Serves as loading table for the MITO FBS washing system.
- Top surface and sink are made of stainless steel AISI 316L.
- Access to the lockable bottom storage.
- Emptying station can be equipped with rinsing taps and manual cap remover.

### Ultrasonic bath version

- The sink is provided with a sliding cover.
- Automatic treatment cycle. LED display and timer for cycle control.
- Pump for automatic chemical dosing. Checking of the chemical quantity through a low level alarm.
- Ultrasonic generator fitted with a radio frequency interference filter and with power control from 0 to 100%. The ultrasonic frequency is modulated in order to avoid dead areas and ensure full chamber coverage.

### Semiautomatic complete solution



This solution shows a loading table with ultrasonic bath equipped with a rinsing tap and a manual de-capper followed by a washing and filling machine and an unloading table for "in line" operation.

### Manual decapper



### Caps crate



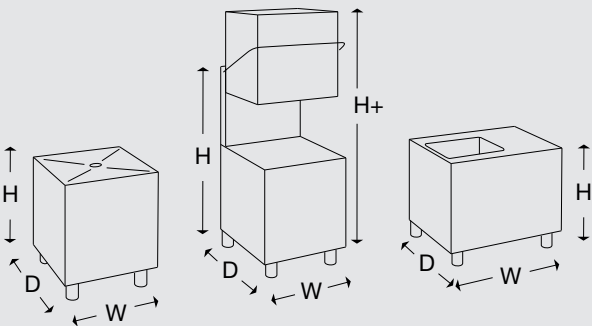
### Caps washing and disinfection

During the washing phase the caps crate is rotated backwards and forwards, ensuring a better water coverage.

### Bottle emptying station with ultrasonic bath



feeding bottle washers



Washer and module dimensions		W	D	H	H+
Hood type washer	mm	650	700	1465	1885
	inches	25.59	27.56	57.68	74.21
Emptying station	mm	1000	700	850	-
	inches	39.37	27.56	33.46	-
Ultrasonic bath emptying station	mm	1300	700	850	-
	inches	51.18	27.56	33.46	-
Dripping station	mm	600	700	850	-
	inches	23.62	27.56	33.46	-



## MITO 2B

### Semiautomatic feeding bottle washing system



MITO 2B is a hood type **bottle washer/sanitizer** with a capacity to process 2x18 bottle crates per cycle.

**MITO 2B system shares the multifunctional loading tables and smart accessories of MITO FBS system**, plus a dedicated module for bottle filling.

MITO 2B is suitable for small size facilities and can be supplied with a semiautomatic bottle recapping module that significantly reduces operating time.

#### Key features

- **Chamber entirely made of stainless steel AISI 316L.**
- Independent washing and rinsing system.
- Disinfection by rinsing at 85°C/185°F.
- Washing water filtration system designed to protect recirculation and drain pumps from debris. The filter is easily removable for cleaning.
- Individual nozzles for full bottles coverage during the wash and rinse cycles.
- Microprocessor control system with RS232 port for external connection.
- LCD Display control panel, with up to 40 programs capacity.

#### MITO 2B





# MITO filling module

## Semiautomatic feeding bottle filling station



Filling module for one or two bottle crates.  
This module can be manually loaded or automatically conveyed.  
The bottle filling starts automatically once the crates are correctly positioned. The system is offered with a 3 position timer for setting different bottle filling volumes.

### Key features

- Serves as unloading table for MITO 2B washing system.
- Top surface is made of AISI 316L stainless steel and slopes towards a central drain.
- Access to the lockable bottom storage.

### Optional

- Interchangeable filling grid for different crate bottles size
- Customized solution combined with drinking water acidification unit

# Filtration unit

## for drinking water

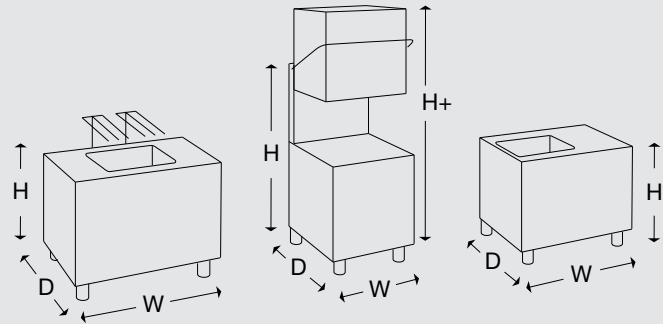
- High level water filtering system on a wall-mounted structure.
- 3 stage water filtering with cartridges from 10μ up to 0.2μ.
  - Double pressure gauges for the monitoring of water pressure in filters.
  - Dimensions: 800x170x500h mm (31.49"x6.69"x19.68")

### Optional

- Carbon filter, UV light, auto disinfection circuit



feeding bottle washers



Washer and module dimensions		W	D	H	H+
Hood type washer	mm	650	700	1465	1885
	inches	25.59	27.56	57.68	74.21
Emptying station	mm	1000	700	850	-
	inches	39.37	27.56	33.46	-
Ultrasonic bath emptying station	mm	1300	700	850	-
	inches	51.18	27.56	33.46	-
Filling station	mm	1000	700	850	-
	inches	39.37	27.56	33.46	-



## MITO PT

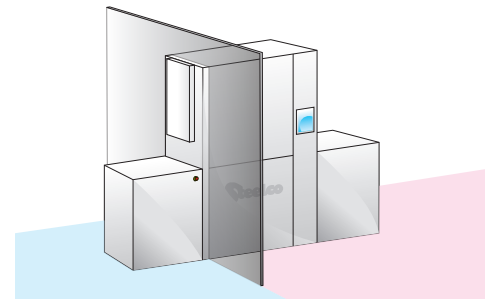
### Automatic pass-through feeding bottle washers



Mito PT has been developed for small size facilities and provides flexible solutions for bottle feeding processing.

MITO PT can wash and rinse automatically up to 18 bottles in a crate per cycle and can process different type of bottles. An upgraded version with a powerful drying system is also available.

#### Suitable for pass-through applications

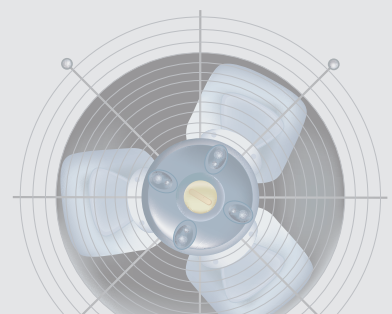
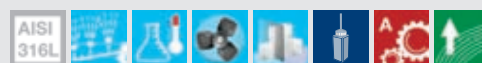


MITO PT is a double door module, suitable for in line and conventional barrier pass-through application.



### MITO PT with built in hot air drying unit

Feeding bottle washer enhanced with a powerful drying unit. This system ensures a complete drying of bottles in order to allow for a longer waiting time before the sterilization process starts.



# MITO PT - Key features

- Chamber and doors entirely made of stainless steel AISI 316L, external body AISI 304.
  - The unit is designed and constructed with extreme care, finished with smooth and seam free washing chamber.
  - Self cleaning sump with rounded edges.
- Separate washing and rinsing circuits to avoid cross contamination.
  - Two stage water filtration system.
  - Disinfection by rinsing up to 90°C/194°F
  - Provided as standard with dosing unit and flow meter.
- PLC control system with 5.7" touch screen LCD display.
  - Printer connection for the documentation of relevant cycle data.
  - Up to 10 washing/rinsing cycle programs.
  - Programming protection through 3 password levels.

## Optional

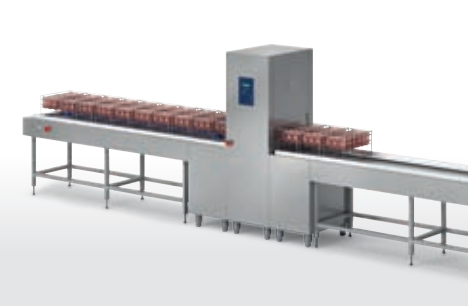
- Full glass doors for visual inspection of the process
  - DI water tank for additional final rinse
- Integrated printer on front panel
  - Conductivity control for DI water tank
- Speed controlled exhaust fan for vapour extraction

## Single phase cycle



The bottles are placed into a crate in an "upside down" position and are automatically loaded, washed and sanitized through internal and external rinsing. Once the washing cycle has been completed, the crate is unloaded from the clean side and collected onto a buffering conveyor.

## Loading/unloading buffering conveyors



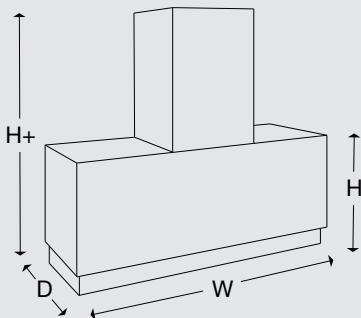
Buffering conveyors for the automatic loading and unloading of the crates. MITO PT can be completed with manual or automatic de-capping and emptying tables as well as manual or automatic filling and recapping stations.



Examples of Steelco installations.

feeding bottle washers

## Washers dimensions and productivity per cycle



		W	D	H	H+	Productivity crates/hour
MITO PT	mm	2180	760	2000	900	up to 30 (540 feeding bottles)
	inches	88.83	29.92	78.74	35.43	
MITO PT air drying	mm	2800	760	2000	900	up to 10 (180 feeding bottles)
	inches	110.24	29.92	78.74	35.43	





## MITO recapping module

### Semiautomatic feeding bottle recapper



This semiautomatic recapping unit is dedicated to small and medium size animal facilities. Bottle recapping has been made easier with attention given to **significantly reducing operator repetitive strain injuries**.

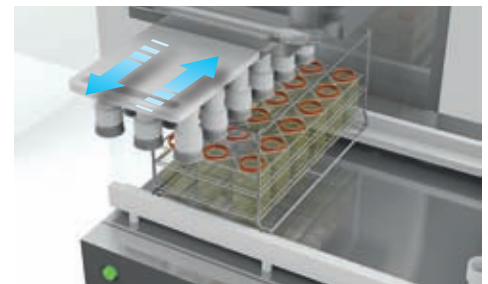
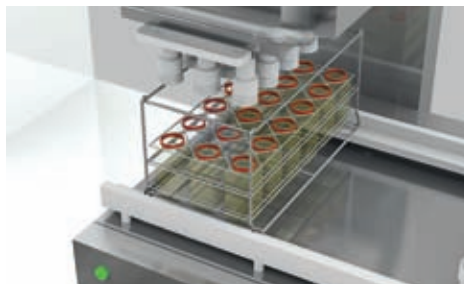
MITO recapping module is compatible with any Steelco bottle crate.

#### Key features

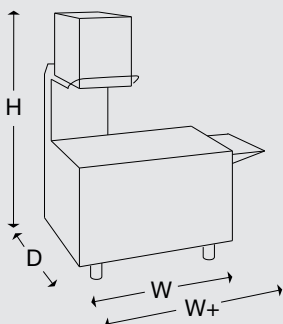
- Workbench made of stainless steel AISI 316L
- External structure made of stainless steel AISI 304
- Automatic system for different bottle heights
- Left or right hand configuration for in-line integration with the washing systems.

#### Optional features

- Feeding bottle filling grid
- Extra removable support for caps



## Dimensions



	mm	inches
W	1000	39.97
W+	1300	44.53
D	850	33.46
H	1850	72.83

#### Caps pre-loading operations:

Caps can be prepared for the recapping process through **manual placement into a removable support or directly into the recapping device**, by simply pulling the device without removing it. An optional filling unit can be added to the same workbench in order to create a **compact semi-automatic filling and recapping system**.

#### Recapping operation:

The recapping device is pulled down until it reaches the tops of the bottles. Once the device has been aligned, the automatic recapping operates by simply pushing the start button. Finally, the recapping device returns to its initial position allowing the removal of the bottle crate.



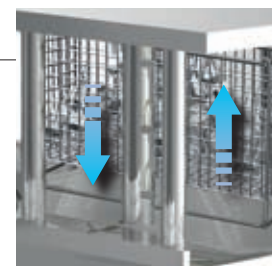
## UC 300 - UC 400/1 - UC 400/2

### Ultrasonic cleaning system

The Steelco UC machine range combine a stainless steel cleaning tank with a powerful ultrasonic generator. Thanks to the effectiveness of the ultrasonic power, these devices can achieve the highest levels of cleanliness required.



The baskets are automatically lifted at the end of the cycle by a pneumatic system provided with a security device.



Under bench storage for chemical canisters.



#### Key features

- Wash tank made of stainless steel AISI 316L, external body made of stainless steel AISI 304.
- LED display and timer for cycle control.
- Automatic tank filling and water control level.
- Pump for the automatic chemical dosing.
- Automatic check of the chemical level through a low level sensor.
- Ultrasonic generator provided with a filter against radio frequency interferences and with power control from 0 to 100%.
- The ultrasonic frequency is modulated in order to avoid neutralized areas.
- Standard ultrasonic frequency 38 kHz, other frequencies on request.
- Tank dimensions 600x350x350h mm (3.62"x13.78"x13.78")
- The UC 400/2 model is configured with two tanks. One tank performs ultrasonic washing, whilst the other one is dedicated to the rinsing of the caps.

#### Optional

- Hinged covers for manual operating version
- UC 400/2 model configured with ultrasonic function on both tanks

## Dimensions

## Models

		W	D	H	*H+
<b>UC 300</b>	mm	800	700	950	1270
	inches	31.50	27.56	37.40	50.00
<b>UC 400/1</b>	mm	1500	700	950	1270
	inches	59.06	27.56	37.40	50.00
<b>UC 400/2</b>	mm	1500	700	950	1270
	inches	59.06	27.56	37.40	50.00

\*with open lids



**UC 300**



**UC 400/1**



**UC 400/2**



## De-Capper

Automatic cap remover and emptying station



This unit automatically de-caps feeding bottles. It comes as a stand alone unit or it can be integrated into an existing bottle line.

Steelco De-capper can be customized to accept different sizes and models of bottles and caps.

This automated system reduces the risk to staff of repetitive strain injuries caused by moving heavy crates.

### Key features

- Entirely made of AISI 304 stainless steel.
- 1 x 18 bottle crate capacity.
- Automatic loading and unloading tables with 2 crates capacity.
- Touch screen display.

### Optional

- Full glass doors for visual inspection of the process

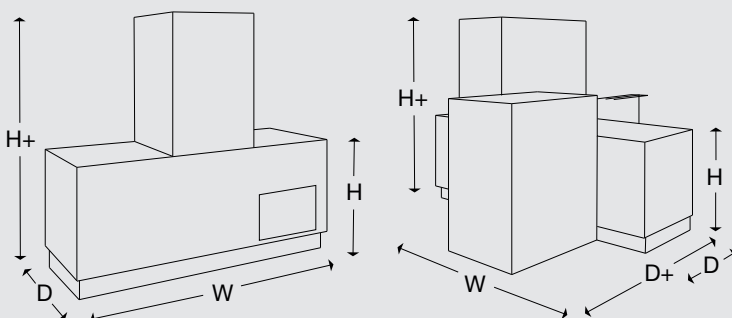
### Ergonomy



The removed caps are automatically conveyed into two **canisters placed inside a drawer** which is easily accessible from the machine loading side.



Full automatic solution combining decapping and washing systems.



	W	D	D+	H	H+	Productivity crates/hour
<b>De-Capper mm</b>	2320	760	-	900	1990	up to 60 (540 feeding bottles)
inches	91.34	29.92	-	35.43	78.34	
<b>Re-Capper mm</b>	2700	760	1745	900	1900	up to 60 (540 feeding bottles)
inches	106.30	29.92	68.70	35.43	74.80	





## Re-Capper

Automatic filling and re-capping station



### When compact means complete!

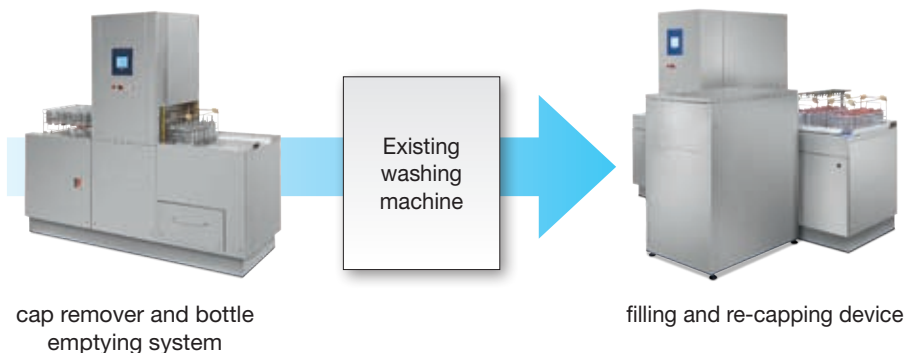
This unit automatically recaps feeding bottles. It comes as a stand alone unit and can be integrated into an existing bottle line.

This automatic device is able to fill and re-cap 1 bottle crate in 1 minute and can be combined with different types of washing devices, reducing the need for staff.

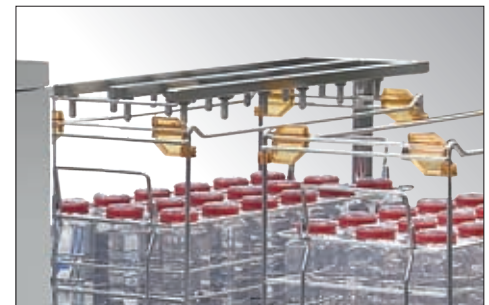
### Key features

- Entirely made of AISI 304 stainless steel.
- 1x18 bottles crate capacity.
- Automatic loading table with 1 crate capacity.
- Automatic loading table with 2 crates capacity.
- Touch screen display.

## System integration



### Auto start function



The filling system starts automatically once the crate is positioned

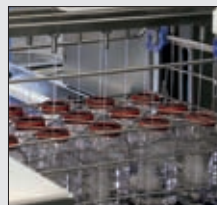
## 5 phases cycle



Cap loading



Manual or automatic bottle crates loading



Automatic bottle filling



Automatic bottle recapping



Manual or automatic bottle crate unloading



## MITO FB COMBI

the comprehensive approach  
for the sanitization of feeding bottles



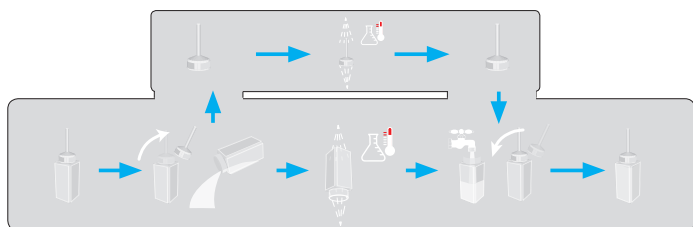
The most compact, multifunctional and automated system  
for the simultaneous disinfection of feeding bottles and caps.

- Less than **4 m<sup>2</sup> footprint**
- **Over 1080 bottles and caps reprocessed per hour**  
with a considerable saving of time and personnel
- Suitable for in line and conventional barrier  
pass-through applications



**High productivity within  
a compact solution**

Decapping, emptying, washing, sanitization, filling and recapping: **all in one solution within a small footprint.**



Perfect solution for robotic loading/unloading systems, the MITO FB COMBI ensures optimal results efficiently.

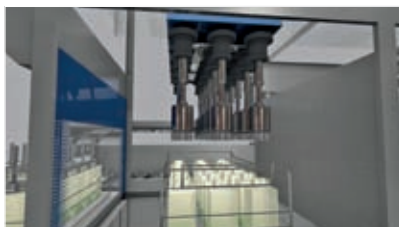


### Automatic loading table



Loading table with a capacity of two cages and compatible with automatic or robotic loading systems.

### Decapping and emptying



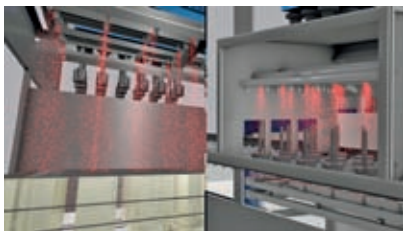
The caps of the bottles are removed and placed on the dedicated washing line. The remaining water in the bottles is automatically emptied.

### Washing chamber stations



Bottles and caps are washed separately in interlocked chambers.

### Sanitization phase



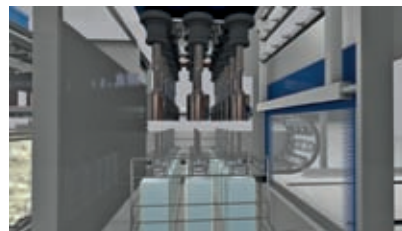
Sanitization is performed by rinsing with individual nozzles for bottle and caps.

### Filling phase



Bottle filling automatically starts once the crate is correctly positioned. Bottle filling volume is controlled by the system.

### Recapping phase



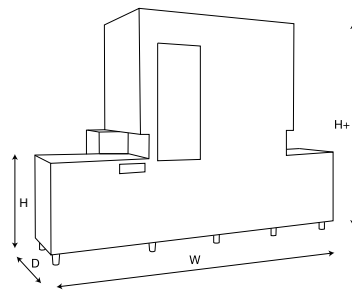
At the end of the process, the bottles are automatically capped with the same initials caps.





## MITO FB - Key features

- **High productivity**  
Over 1080 bottles processed per hour
- **Fully automated**  
Compatible with robotic loading and unloading functions
- **Compact solution**  
Less than 4 m<sup>2</sup> footprint
- **Versatile**  
MITO FB COMBI is compatible with any model of caps and feeding bottles available on the market
- Fully automatic process, 1x18 bottle crate capacity.
- PLC control system with 5.7" touch screen LCD display. 3 password level protection programming.
- Chambers entirely made of stainless steel AISI 316L, external body made of AISI 304.
- Full transparent external doors for visual inspection of the process.
- Independent washing and rinsing systems to avoid cross contamination. Individual nozzles are dedicated to outer and inner surface of the bottles.
- Disinfection by rinsing up to 90°C / 194°F.
- Washing and rinsing chambers fitted with stainless steel interlocked sliding doors.
- Double HST glass door for washing chamber visual inspection.

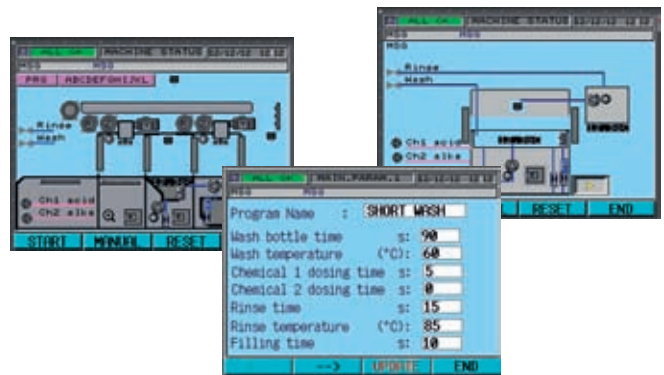


Washer system dimensions

	W	D	H	H+
mm	3400	1150	875	2450
inches	133,8	45,3	35,5	96,5

### Control system

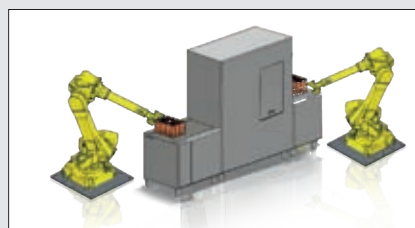
- Control system, with its auto-diagnostics, constantly monitors and displays the current cycle status and alarms.
- It allows the user to optimise the washing process and to personalize cycle programs.



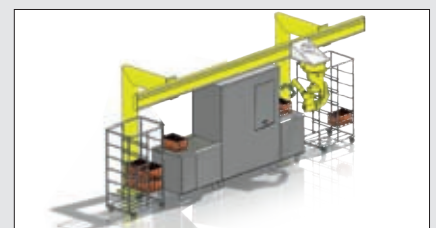
### Robot technology

Increased productivity thanks to **robotized** or **automated** loading/unloading

#### Double robot configuration

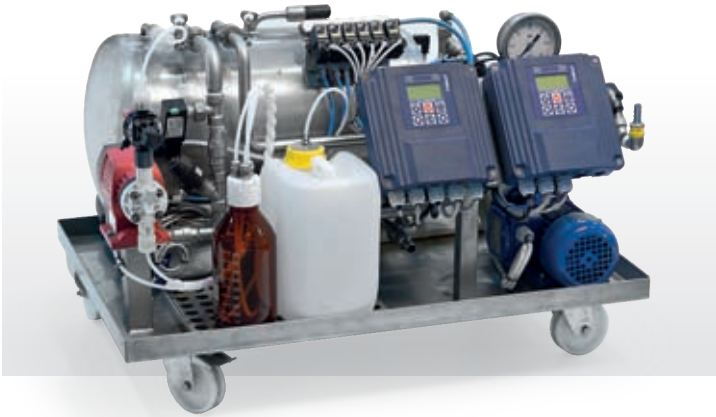


#### Single robot on rail configuration





## Acidification unit for drinking water



Laboratory animal drinking water is sometimes continuously acidified for disinfection. For those facilities that require acidified water, Steelco provides equipment for continuous acidification of bottled water.

As a general guideline, drinking water should be acidified to a pH of 2.5 to 3.0. This, in order to guarantee a bactericidal effect.

The system is equipped with an automatic proportional outlet pump and with two pH meters that automatically monitor the treated water pH.

Dimensions  
880x800x600h mm (34.65"x31.50"x23.62")

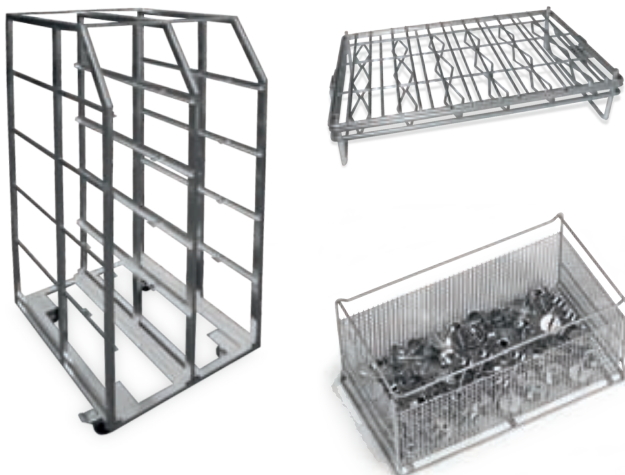
### Key features

- **Totally made of corrosion resistant stainless steel AISI 316L.**
- 80lt (21 Gal US) tank complete with water valve level sensor, pressure switch, flowmeter, pH sensor and two pumps.
- The system is equipped with a chemical dosing pump which has a proportional dosing system connected to the pH sensor, a water mixing system is active in order to obtain a correct pH acid solution value.
- A PLC microprocessor checks all the phases and guarantees the correct result, thanks to a second pH probe that checks the correct pH value at the moment of the use. If this doesn't happen, the system re-establishes the pH value set before the use.

## Crates and trolleys for feeding bottles

The range of Steelco accessories dedicated to sanitizing bottles for animal feed is **aimed at facilitating the tasks of the operator**. An example of this is the smart solution to open and lock the lid of the bottle crates.

The crates for containing bottles for animal feed are available for all models in the market. Collecting crates for bottle caps and autoclavable stainless steel transport trolleys are also available.





## Decontamination lock

### Multiple decontamination method chamber

Steelco decontamination lock is an interlocking door chamber that may be used with multiple decontamination methods. The decon lock can be integrated with any type of existing vapor generators.



Steelco control panel allows the setting of the cycle and the monitoring of the entire process.

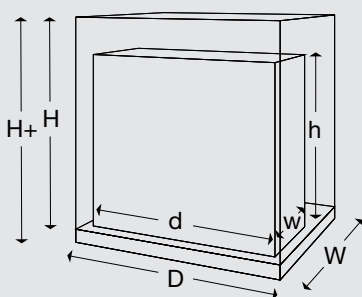
#### Controls

- Touch screen panel
- Emergency push-buttons (on both sides)
- Internal safety for "man on board" with emergency circuit
- Emergency light signals
- Main switch button
- Gas monitoring system
- Sampling test point
- Interlocking doors
- Inflatable gasket control
- Control system interfaces with generators for signal exchange



#### Chamber sealing

Decontamination lock access doors are equipped with two independent separately controlled integral inflatable gaskets.



	external dimensions					chamber dimensions		
	W	D	H	H+	*H+	w	d	h
mm	2200	2314	2440	2460	2510	1100	2076	2150
inches	86.61	91.10	96.06	96.85	98.82	43.30	81.73	84.65

\* Decontamination lock equipped with drain



## Decontamination lock - Key features



Decontamination lock with integrated HPV generator

- **Completely made of corrosion resistant stainless steel AISI 316L.**
- FAT-SAT-IQ-OQ-PQ for full validation available.

### Optional

- Full glass doors for visual inspection of the process
- Exhaust air duct filters
- Decontamination product dosing
- Catalizer
- Fogging disinfection system
- Ventilators
- Filtration unit
- Anti skid floor
- Self cleaning system



Fogging atomizer



Gas injection point



High speed aeration unit



Ext. generator connection

## Safe lock doors

### Controlled environment

Steelco Safe Lock Doors give our customers a flexible and customized solution for any application where perfect air tightness and safety measures are a must.

### Key features

- The doors can be made either of stainless steel AISI 316 L with glass inspection window or in the smart full glass door version.
- The glass is also available in red color which prevents small animals such as mice and rats to be disturbed by human activity.
- Doors can be activated by push-button, badge or any other kind of customer interface device.
- Emergency opening push-buttons and unlocking safety devices assure fast opening in case of emergency.
- Perfect air tightness is created by the gaskets which are operated by a PLC. The system is also interfaced with a system for access control.



Sliding door version

Swing door version



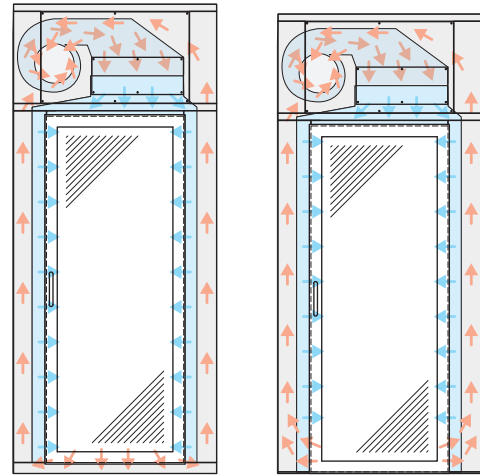


## AS 1000

### Air shower



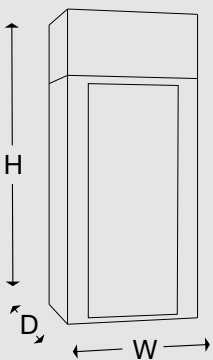
Steelco Air Shower AS 1000 is designed to remove surface contamination from personnel prior to entering a lower level contaminated environment.



Steelco AS100 is available with and without a suction floor.

### User Friendliness

- Open the access door
- Enter the air shower
- Close the access door
- The unit automatically detects the presence of a person
- The unit starts the cycle
- At the end of the cycle the door automatically unlocks allowing access to the clean area
- The duration of the air shower cycle can be easily adjusted



### Dimensions

		W	D	H	*H
<b>AS 1000 straight passage</b>	mm	1125	1000	2560	2600
	inches	44.29	39.37	100.78	102.36
<b>AS 1000 angle and T passage</b>	mm	1125	1125	2560	2600
	inches	44.29	44.29	100.78	102.36

\* Suction floor versions



## AS 1000 - Key features

- Outstanding level of cleanness, the AS 1000 is equipped with 40 air nozzles (10 on each cabinet corner) to create an enveloping air flow.
- High efficiency blower for an average air velocity equal or higher than 20m/s.
- Two level filtration system: blower pre filter, HEPA H14 filter.
- Full body in stainless steel for easier cleanability, long duration and better resistance to scratches.
- Designed to be floor mounted between areas with different levels of contamination.
- Different configuration options: Straight through passage, Angle passage, T passage (with 3 door passage).
- Emergency push buttons inside and outside the chamber.
- Electronic controller with LED countdown displays on both external access sides of the cabinet and inside the chamber.
- Automatic person presence detection for automatic start of the blowing cycle.
- Interlocking doors with magnetic locks.



Cabinet lightning



High efficiency air nozzles



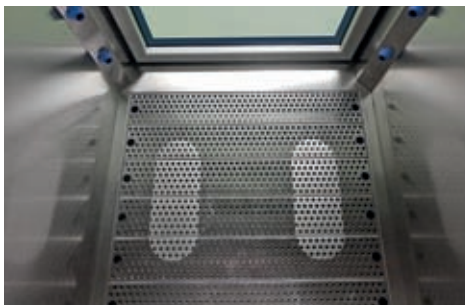
Operator control panel with detailed. Internal safety for "man on board" with emergency circuit.



### AS 1000 suction floor version



Stainless Steel removable grids floor.

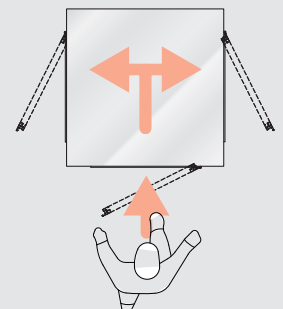
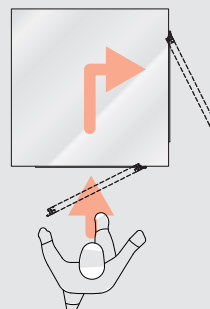
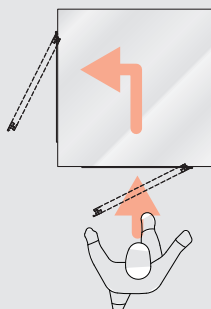
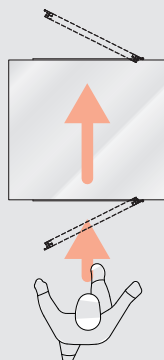


User friendly design

## Configurations

Different available configurations with left or right door openings:

- Straight through passage,
- Angle passage left or right
- T passage (3 door passage)







[www.steelcospa.com](http://www.steelcospa.com)



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