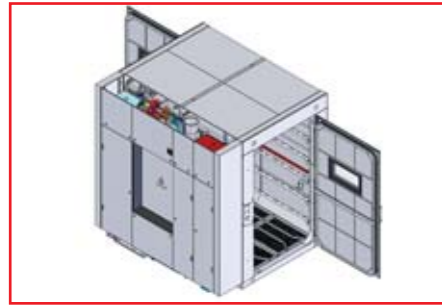


TECHNICAL SPECIFICATIONS AND DIMENSIONS

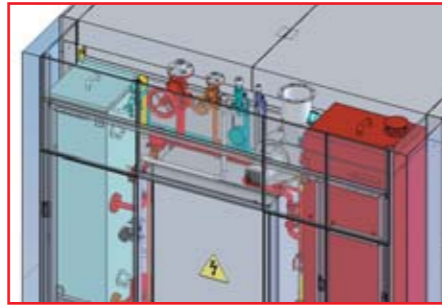
IWT SERIES 900 & 900XL CAGE AND RACK WASHER

Code	Interior Useable Capacity (mm • inches)	Exterior Cabinet Dimensions (mm • inches)	Pit Depth (mm • inches)
9LAVSC900	2200 X 920 X 2100 • 86.5 x 36 x 82.5	2542 X 2210 X 2500 • 100 x 87 x 98.5	150 • 6
9LAVSC900XL	2248 X 1169 X 2356 • 88.5 x 46 x 92.5	3100 X 2750 X 2672 • 122 x 108 x 105	200 • 7.9

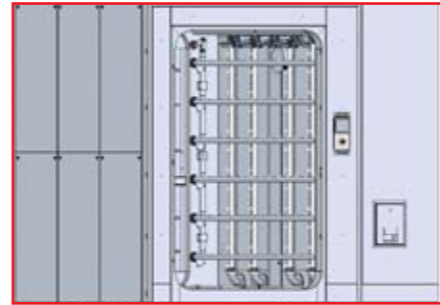
Note:
 1) Electrically heated versions and custom models are also available, please consult the factory for further details.
 2) Finished pit to be provided; IWT will submit mechanical information, service requirements and detailed installation drawings on request.



• 900 rack washer.



• 900 Rack Washer: Detail of the technical space.



• 900XL: vertical/horizontal arms.

OPTIONS

- 9LAVSC902*, 2nd insulated door with window for pass-through application.
- 9LAVPD01, extra dosing pumps for accurate injection of neutralising agent, sanitising solution and/or to perform acid wash as alternative to alkaline.
- 9LAVSCSA01, 2nd washing tank for acid wash together with the alkaline (standard feature with the XL version).
- 9LAVSCVS01*, Final steam sanitising system via dedicated pipework to provide thermal disinfection.
- 9LAVSTFBAT, Separate S/s steam filter panel made up of 3 steam filters (85-20-1 µm), pressure gauges, steam trap and fully insulated.
- 9LAST801, Electrical box mounted printer.
- 9VIEWRW*, Hardware architecture and purpose software for cycle data management from a remote PC station.
- 9LAVSCFLAA02*, Flushing system complete with quick release recoil hose to sanitise rack auto-watering manifolds.
- 9LAVSCAT01*, Fogging facility for surface disinfectant nebulisation by means of dedicated atomisers.
- 9LAVSCVHP*, H₂O₂ facility, via a dedicated pipe-work and to be connected with a vapour generator.
- 9LAVSCWDCS1*, Ph and temperature control kit for discharge water.
- 9LAVSCVAL*, Validation Protocol Document (IQ, SAT, OQ, PQ).

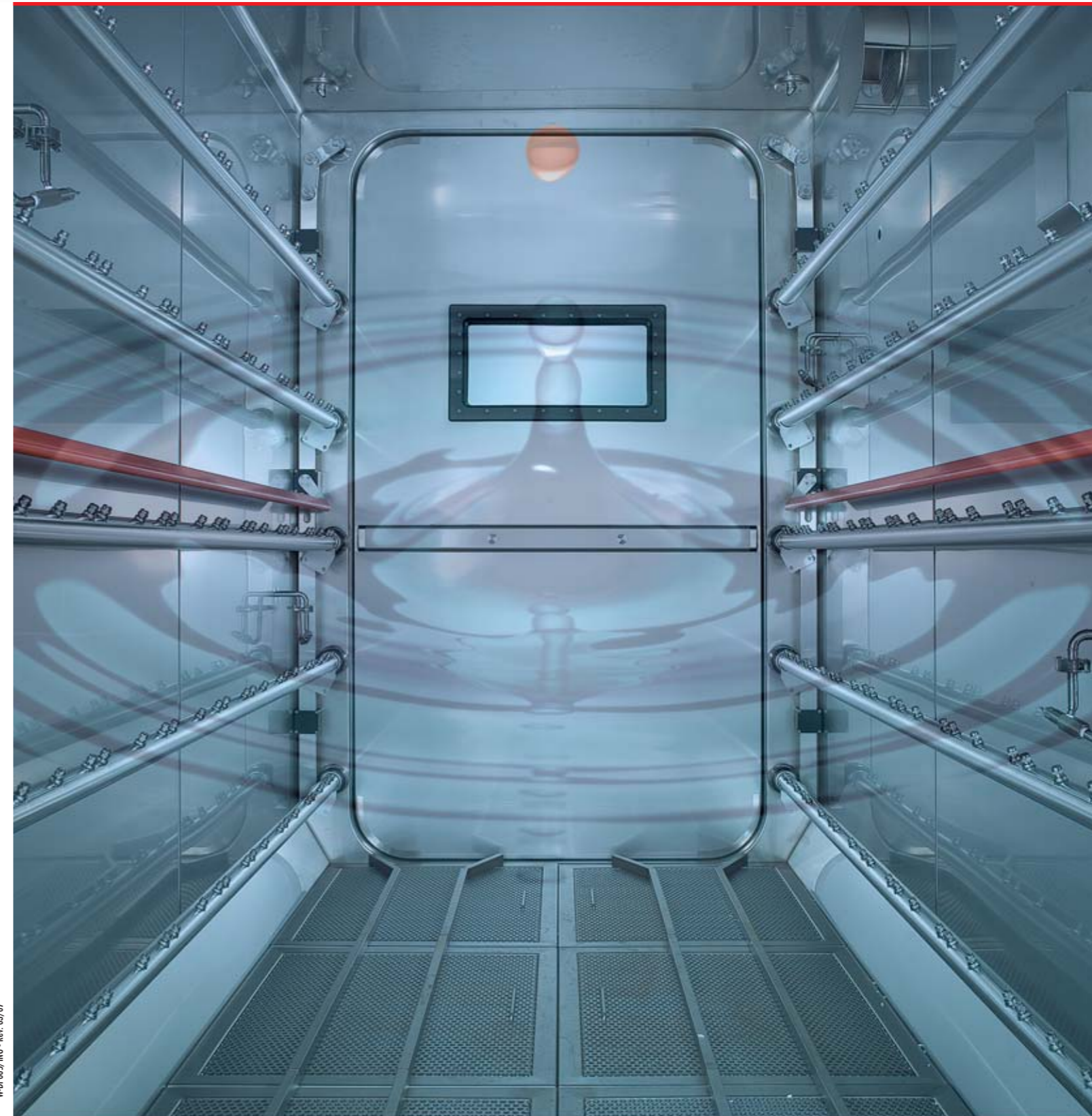
* 900XL option codes are the same as 900WP ones, with the suffix "XL" at the end of the code

ACCESSORIES

- ACCALS02, Universal presentation rack for washing all plastic cages, s/s lids and other accessories.
- ACCALG03, Presentation rack for washing rabbit and GP cages, trays and other accessories.
- ACCALS02AA, "Baby" universal presentation rack for washing all plastic cages, s/s lids and other accessories (2 x cycle).
- ACCALG03AA, "Baby" presentation rack for washing rabbit and GP cages, trays and other accessories (2 x cycle).
- ACCALS02HD, High density presentation rack to hold up to 120 mice cages (type I long). Suitable for type IIL and GM500 too or similar size.
- ACCALLBCB18AA, Presentation rack for washing 9LBCB18-- bottle crates. 2 rows on each side, 3 crates per row. 12 x 18-bottle crates per rack.

W:DP002/MIG - Rev. 03/07

CAGE AND RACK WASHERS



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ISO-9001:2000 - Cert. n° 3406/0

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IWT Cage and Rack Washers

Innovation and Reliability at your service

Designed specifically to meet the throughput needs of medium to large size facilities, these machines will live up to your highest expectations in terms of...

• MAXIMUM CLEANING EFFICIENCY

Nearly 1 ton of water (250 gallons) per minute is pumped right into the heart of the load at 3 bar (45 PSI) pressure. Unlike less innovative systems, the adoption of our 90° oscillating spray patterns ensure that all this energy is released at load level from every possible angle thereby maximising cleaning efficiency. The 140 wash and 80 rinse nozzles (separate circuits), guarantee complete, continuous coverage of the load. As a result of this unique combination of water quantity, pressure and coverage, you can expect an outstanding cleaning performance, up to 10 cycles per hour, making this machine ideal for medium to large scale operations normally served in the past by tunnel washers only.

• SAFETY IS A PRIORITY

Always high on our priority list, safety features include panic-proof self-deflating door gaskets, large observation windows, safety switches on doors and self-cleaning filter, warning lights and acoustic alarms, chamber overpressure air vent, certified IP55 rating of the electrical box (TUV certified) and a Siemens microprocessor with a password protected touch-screen for operator interface.

Safety means clearly marked external emergency stop buttons at both load and unload sides as well as easy-to-grasp, wide **red emergency bars on the inside**.

The IWT 900 washer is the only Cage and Rack washer on the market featuring an Hazardous Operating Procedures document (HAZOP) and a Risk Assessment procedure performed by an independent safety agency.



• FOCUS ON THE ENVIRONMENT LEADS TO MINIMUM RUNNING COSTS

Our machines are designed with energy saving and reduced environmental impact in mind, including limited heat loss and noise emission which is well below 70 dBA. By partially recirculating wash water in combination with a totally separate rinse circuit, we ensure a remarkable reduction in energy usage, steam peak demand and consumption and, of course, the use of chemicals and waste discharge. Furthermore, our highly efficient mechanical wash, makes for very low detergent concentrations, typically 0.15%, offering further financial savings and remarkable protection. Please consult with our local representative for break-even running cost analysis and return on investment.

• QUALITY CONSTRUCTION

Finely rounded smooth cabinet work and self-draining orbital welded pipes mean no cavities, no dirt traps and no water stagnation. Full sound-proof insulation, double glazed windows, vibration-free adjustable feet and top class components all confirm our constant commitment to product quality.



• VALIDATION

For GMP/GLP requirements or any other quality standard and accreditation, our rack washers offer the possibility of a highly comprehensive program of machine and process qualification ranging from the very basic FAT protocols to the full validation including SAT/IQ/OQ tests and Performance Qualification with soil and/or microbiological tests.



Flexibility is the key word!

In a competitive and changing environment, equipment has to be built today to meet the requirements and challenges of the future. IWT Cage and rack washers offer the greatest degree of flexibility...

• IVC RACK WASHING AND AUTOWATERING FLUSH

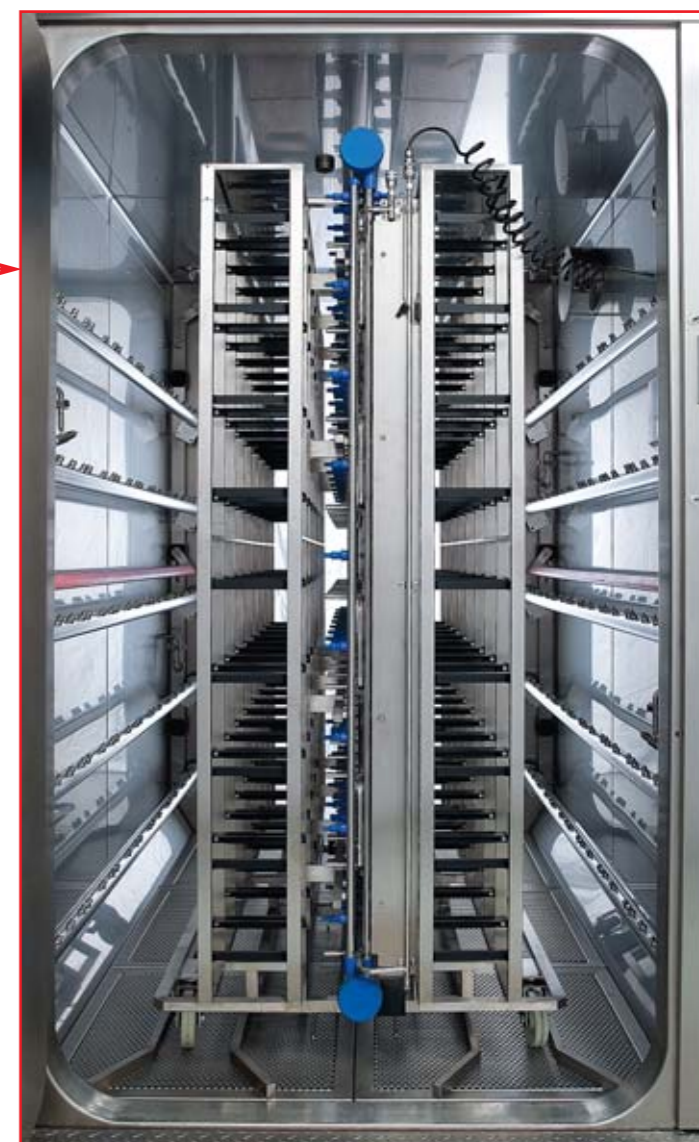
Purposely developed and validated cycle (test report available on request) to flush water through the air plenums of the ventilated racks. During this special cycle all arms stop at the top of the oscillating angle, stand still and direct over 1000 lt (250 gallons) of water at the roof.

This powerful waterfall flushes through the vertical plenums of the IVC racks, washing dust and similar residues. For all facilities on auto-watering systems, we also make available the **option of hooking up water manifolds to the machine via a purpose recoil hose** and, on demand, flushing hot filtered and constantly fresh water through the auto-watering manifolds and valves.

• HYDROGEN PEROXIDE VAPOUR FACILITY

Under barrier or bio-containment conditions the IWT rack washer offers another unique feature: our air-tight wash chamber can be used periodically as an H₂O₂ pass-through chamber to decontaminate heat-sensitive equipment (computers, laminar flow benches, ventilation units, lab instruments, etc. ...) or vacuum packed consumables.

This can be achieved by connecting the rack washer to any H₂O₂ generator and providing an effective circulation of the vapour into the chamber via the four injection points. This option includes cables and software upgrade for communication protocol between the two machines as well as inspection ports for monitoring residual concentration prior to door opening. Technical information and microbiological validation reports are available on request.



• THERMAL DISINFECTION

Temperature attainment is becoming an increasingly important criterion for regulatory bodies and thanks to our unique air-tight inflating door gasket and fully heat-insulated chamber, our 900 series washer is the first and only rack washer to provide the option of a true thermal disinfection cycle according to the British Standard 2745 (HTM 2030).

The result, consistent temperature across the load and continuously during the holding time, is achieved by means of clean (or filtered) steam injection into the chamber. This option is ideal to remarkably enhance the dryness of the surfaces of the various loads and the chamber itself.

• CHEMICAL FOGGING

Our machine not only washes but can also double as a chemical fogging chamber when fitted with a circuit of four atomisers nebulising fine particles of surface disinfectant and compressed air within the chamber. A 5-litre (1,3-gallon) dispensing reservoir is accessible from the front panel on the dirty side for periodically dispensing disinfectant.

This option is ideal for consumables such as feed and bedding by means of wet (not suitable for electronics) surface disinfection of the bags. Technical information and microbiological validation reports are available on request.

IWT 900 Cage and Rack Washer: Make comparisons...not compromises!



• 10 side oscillating arms with 140 wash nozzles and 80 rinse nozzles for constant and homogenous coverage of the presentation rack load.



• 90° degree water jet arm oscillation by means of a pneumatic cylinder that ensures all energy is released at load level from every possible angle.



• Integral multiple rib inflatable gasket, safely encased within door frame, for active and true sealing of the chamber in the SPF barrier application as well as during H₂O₂ vapour gassing or chemical fogging. No more exhaust hoods over the doors!



• Front hatch with cam-lock connections for supply and return hoses coming from the mobile H₂O₂ generator. This option includes wire cables to execute communication protocol throughout the cycle, inspection ports for residual concentration monitoring and standard cycle development.



• Piping and valves in the service area featuring pharma standard tri-clamp connections and made entirely of electro-polished stainless steel. No copper, mild steel or rubber is ever used.



• Truly back flush self-cleaning filter for the re-circulating wash water, activated every cycle during the dripping phase, with easily removable fine mesh cartridge. No more daily maintenance on filters!



• Optional atomiser (one of the four included in the kit) for the chemical fogging facility. These come together with the distribution pipe, compressed air line, mixing tank and delivery funnel.



• Operator multi-language touch-screen interface with password protected access for cycle management and machine manual operation. Attractive coloured graphics for user friendly operation and diagnosis with over 100 different parameters being constantly monitored.

IWT 900XL Cage and Rack Washer: performance and flexibility eXcel!

IWT is proud to introduce the first and unique Washer purposely designed to wash and disinfect racks and cages for large animals. The 900-XL exceeds by far the standards of the laboratory animal industry in terms of chamber size, wash power, spray pattern and load coverage! It combines our traditional horizontal oscillating arm concept, ideal for rodent cages and IVC racks, with the unique battery of vertical arms, located on one side and oscillating by 90°. This thorough spray pattern, combined with a water flow rate in excess of 1 ton of water (290 gallons) at 5 bar pressure (72 PSI), is capable of reaching any hidden surface and remote back/lower panel, providing outstanding wash results in a remarkably short cycle time. The simultaneous presence of horizontal and vertical arms means that it is possible to develop, test and implement different washing cycles for different applications and degree/nature of soiling, as is nowadays required in a multi-species facility.



The machine is equipped as standard with two wash tanks resulting in great flexibility in cycle development which may include a de-scaling pre-wash followed by a regular wash or a sequence of alkaline and acid wash phases. The rinse circuit, as for the standard 900 series, is totally separated from the wash line leading to a dramatic reduction in water and energy consumption. As in the 900 series, the 900-XL washer features an inflatable door gasket and hardware-software integration with H₂O₂ vapour generators. IWT doubles up...not only a powerful washer but also a decontamination chamber within the same foot-print, when required! Even more than before, flexibility and performance eXcel in the 900-XL cage and rack washer!



• Floor with adjustable rails.



• Horizontal and vertical oscillating arms.



• Inflatable active gasket.

Presentation Racks

Thorough and effective rack-washing requires suitable presentation racks, always matching water jets provided by the machine during operation. Our racks also feature a high degree of flexibility making them compatible with most of the caging standards present on the market.

IWT ACCESSORIES DIMENSIONS		
Code	Overall Dimensions (W x L x H) - mm	Overall Dimensions (W x L x H) - inches
ACCALS02	790 x 2030 x 2000	31.1 x 80 x 78.7
ACCALS02AA	790 x 1040 x 2000	31.1 x 41 x 78.7
ACCALG03	850 x 2000 x 2063	33.5 x 78.75 x 81.2
ACCALG03AA	850 x 1040 x 2055	33.5 x 41 x 81
ACCALS02HD	790 x 2030 x 1896	31.1 x 80 x 74.6
ACCALBCB18AA	790 x 1110 x 1885	31.1 x 43.7 x 74.2

Code ACCALS02

Highly flexible rack-washing system, suitable for any size small rodent plastic cages, filter tops, stainless steel lids and other accessories with no need for rack adjustment. Load capacity ranges from 24 type IV to 96 type I cages. Our unique 20 mm swinging bar system positively secures the load during washing cycle and operation. Entirely made of AISI 304 stainless steel with four pivoting nylon castors. Available in a compact and very manageable configuration for better operations in tight and congested washing rooms.



• Universal presentation rack.



• Detail of ACCALS02 rack.



• ACCALS02AA "baby" presentation rack.

Code ACCALG03

Versatile rack to accommodate 8 to 12 Noryl cages or trays for Guinea pigs and rabbits. Compatible with any cage brand due to the unique restraining system design. Entirely made of AISI 304 tubular stainless steel with four pivoting nylon castors. Available in a compact and very manageable configuration for easier operations in tight and congested washing rooms.



• Large cage presentation rack.



• Detail of ACCALG03 rack loading.



• ACCALS02HD high density rack for mice cages.

Code ACCALS02HD

To hold up to 120 mice cages (Type I). Ideal for single species facility where hourly throughput is a priority and presentation rack flexibility not required. Entirely made of AISI 304 tubular stainless steel with four pivoting castors.