







Hospital Equipment Technology WaSter 50 - WaSter 100





WaSter - Biohazard waste treatment





Pass-through execution system



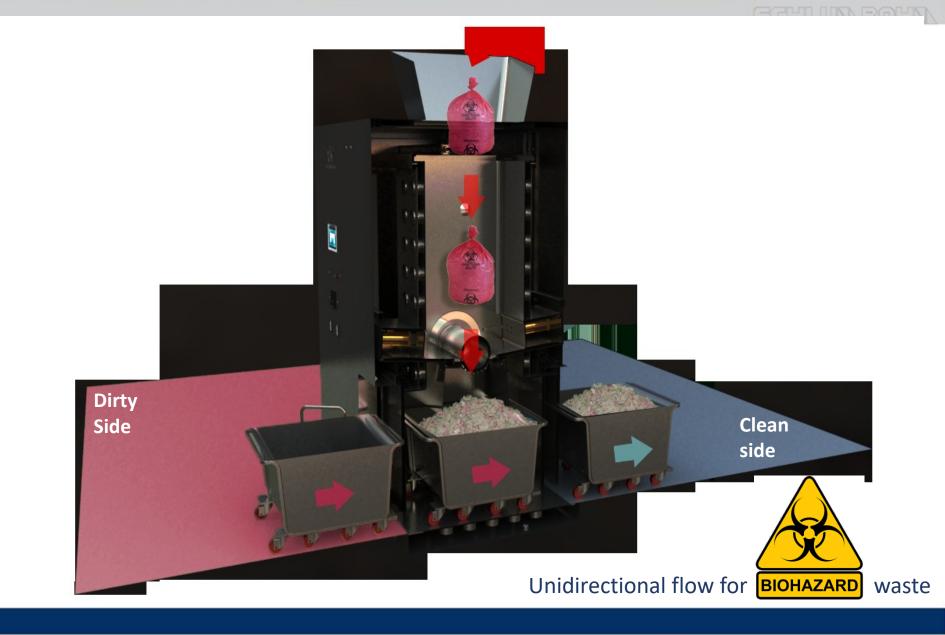
for biohazard waste treatment







Medical waste treatment machine



Medical waste treatment guarantees



Treatment combined with "5 Guarantees"

The combined treatment of WaSter has a number of guarantees that are essential for the safety of the result and repeatability over time:

- Treatment takes place in a tightly closed place to eliminate the risk of transmission via aerosol,
- The trituration system is extremely rigid as it reduces waste to unidentifiable small pieces , to eliminate the risk of recyclability.
- A highly fragmented material is obtained through trituration of the waste that allows the easy removal of air, favoring penetration of saturated steam and, therefore, sterilization to eliminate the risk of biological contamination,
- The type of plant made with innovative construction technical solutions specific for the application with controlled outlets to eliminate the risks of environmental contamination,
- The through-execution of the equipment allows a unidirectional path of the waste and only with positive outcome of the treatment to eliminates the risks of exchange.



AC

Waster offers 5 competitive advantages

- A 80% reduction of volume in favor of transport with costs reduction,
- Easy handling at treatment end due to the fact that the waste is dry,
- Trituration inside the chamber that makes handling safer through sterilization before intervention,
- The cycle takes place in airtight environment, without emission of unpleasant smells,
- The installation with chamber at floor level to facilitate movement of the trolley.



- Chamber totally in stainless steel **AISI 316Ti**, thickness 8 mm, easy to clean and fully drainable.
- Jacket totally in stainless steel AISI 316Ti , thickness 5 mm.
- Door totally in stainless steel **AISI 316Ti**, thickness 30 mm.
- Electro-polished chamber and doors with **mirror** polished finish.
- Chamber and doors surface **reduction of 35%** after electro-polishing.
- Jacket with chamber total covering. No cold spots inside the chamber means uniform drying.
- **20 years** warranty for the chamber.
- Piping totally in stainless steels AISI 316
- «Air chamber» gasket. Perfect seal and long life.



- Totally insulated with **fire retardant mattress, silicone** and **Kevlar**.
- Fully dry vacuum pump. Water consumption for generating vacuum is zero. Compatible with steam. 5 years warranty
- Commercial components supplied by world-wide Leading Companies. Interchangeability with future versions.
- High performance steam generator.
- Industrial construction concepts.
- **Remote** maintenance control device.
- Ability to operate in accordance with **21 CFR Part 11 FDA**.
- **B&D Test** Electronic / Automatic.



- **1** AISI 304 stainless steel frame, front and side panels.
- 2 AISI 316Ti, 8 mm thickness vertical and horizontal chamber, fully drainable and cleanable.
- **3** Chamber bottom with central drain and filtration.
- 4 Jacket made of stainless steel AISI 316Ti, thickness 5 mm, total covering the chambers.
- 5 Chamber and doors mirror finished.
- 6 Master module with three AISI304 stainless steel doors.
- 7 Door vertical and horizontal automatic sliding device.
- 8 Door sealing by dynamic «air chamber» gasket.
- 9 Stainless steel shredder integrated in the vertical chamber.
- **10** Dual waste pushing device against the shredder.
- 11 Chambers, doors, steam generator, and pipeline insulated by kevlar fabric.
- **12** Bio-seal shield: separation between sterile side and clean side. (optional)
- 13 Steam generation by internal electrical steam generator made of AISI 304 (E).
- 14 Steam generation by direct steam connection to an external source (S).
- 15 Steam generation by internal electrical steam generator and direct steam connection (ES).

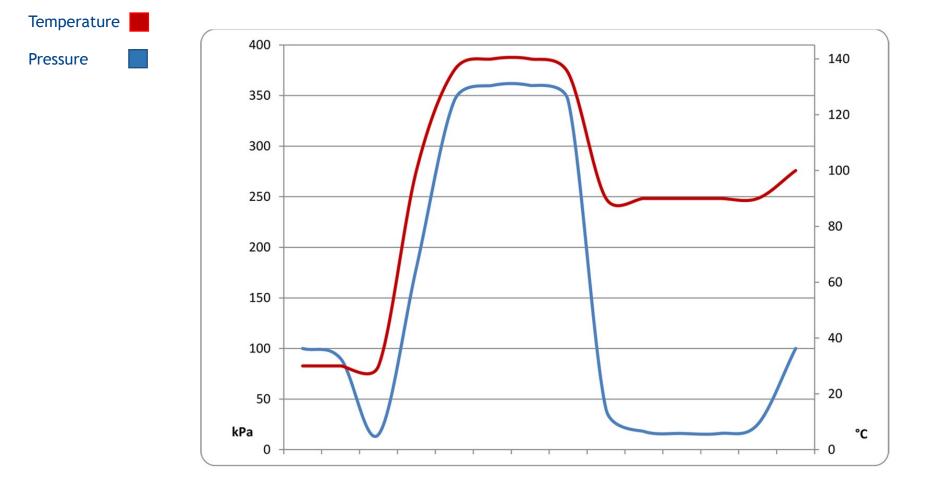
Main technical features

- 16 Discharge temperature control and setting device. (optional)
- 17 Dry mechanical vacuum pump compatible with steam.
- **18** Double data detection systems- Siemens integrated safety programmable electronic controller.
- **19** Touch screen Siemens TP900 Comfort, 9 inches, full color and high resolution.
- 20 Second Siemens color, high resolution touch screen monitor on clean side. (optional)
- 21 Built-in alphanumerical printer.

r SX

- **22** USB connection for data back-up.
- 23 Remote connection-ready. (optional)
- 24 Sterilization cycles for empty glassware, rubber materials, fabrics, liquids in sealed
- 25 containers and liquids in open containers and cycle for infected liquids and materials. Microbiological filtration at discharge.
- 26 Condensate vaporization device. (optional)
- 27 Burner at chamber air outlet.
- 28 B&D Test Electronic / Automatic. (optional)

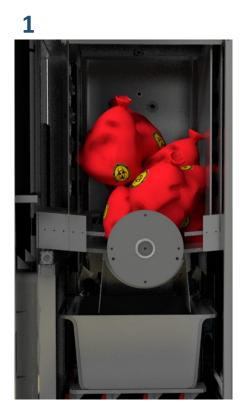




Graphic of shredding and sterilization process



2



The waste is placed In the chamber.

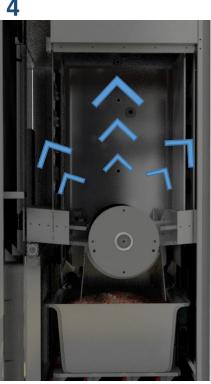


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The waster is in direct contact with dry satured steam.

The waste passes the drying phase.











1- Reception of infected material

The infected material is brought inside the special cart and placed inside the cargo area. A different cart to receive the shredded enters WaSter

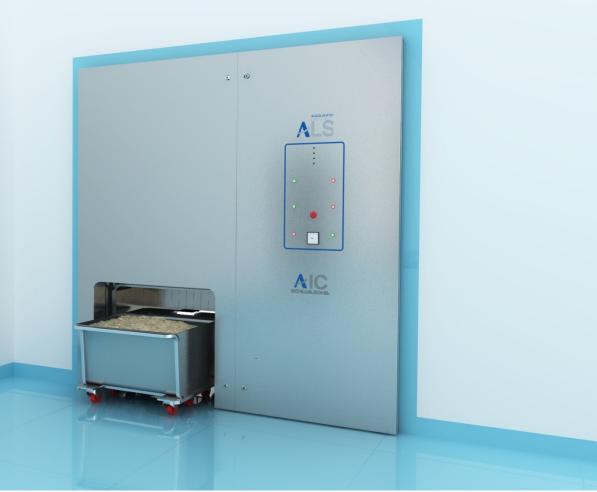




2- Manual charge of infected material and starting of cycle

The cart containing the infected material is raised by lift integrated on the charge level. The load is carried out manually. The basket is hermetically sealed in position to receive the rape. The cycle begins.



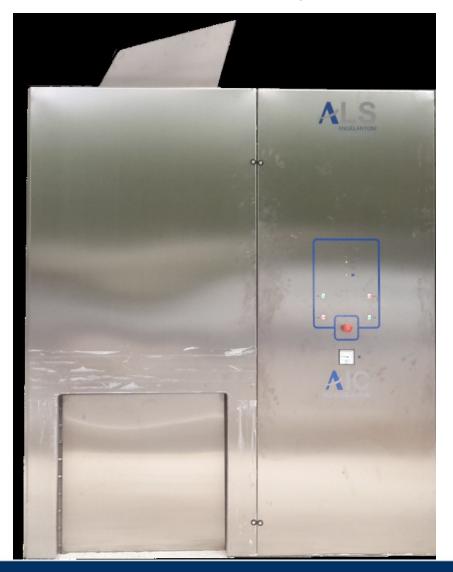


3 - Removing sterile material

The cart containing the shredded waste leaves the sterile side of WaSter.



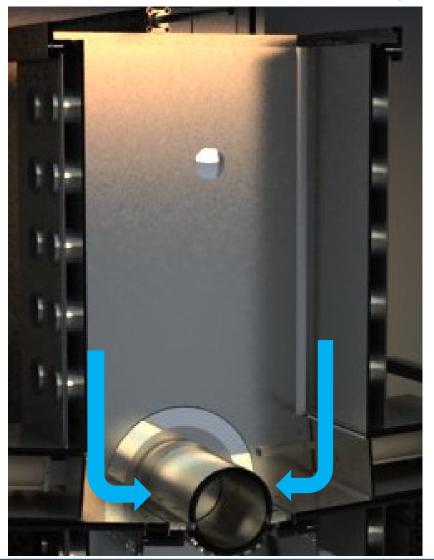
1. AISI **304** stainless steel frame, front and side panels.







2. AISI 316Ti, 8 mm thickness vertical and horizontal chamber, fully drainable and cleanable.



3. Chamber bottom with central drain and filtration.





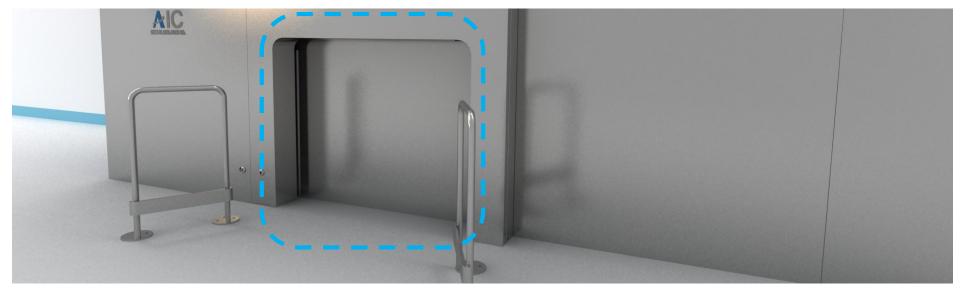
4. Jacket made of stainless steel AISI 316Ti, thickness 5 mm, total covering the chamber.

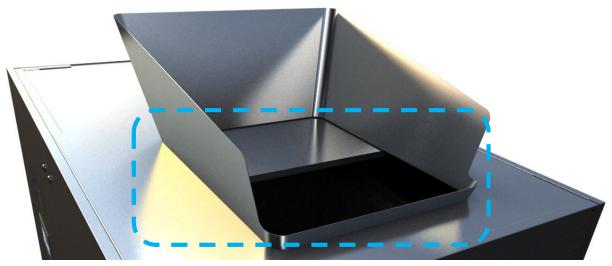
5. Chamber and doors mirror finished.





6. Master module with three AISI304 stainless steel doors.



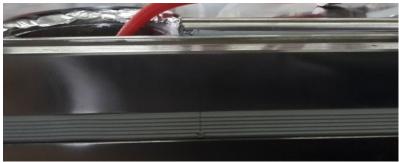




7. Doors horizontal automatic sliding device.



8. Doors seal device with dynamic gaskets "air chamber" type .

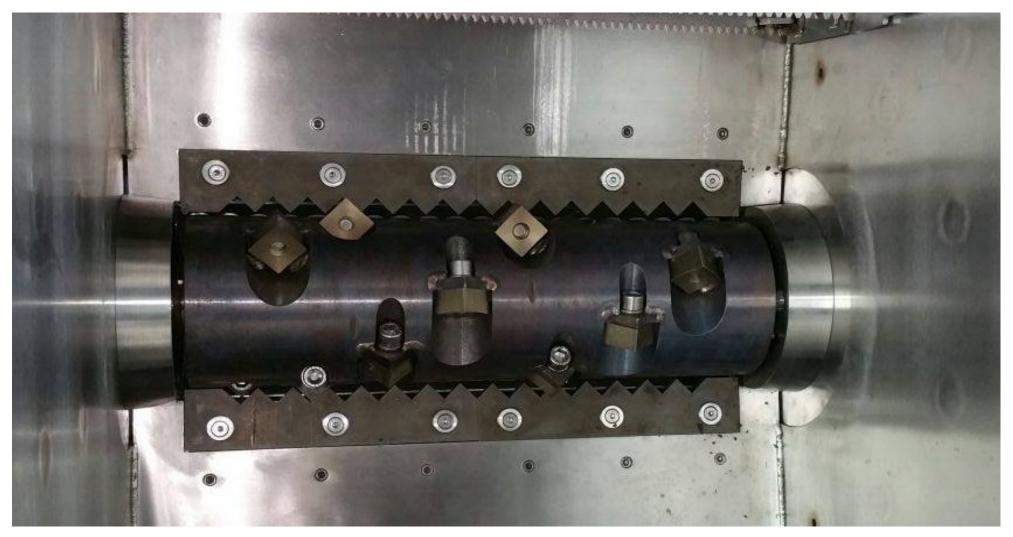






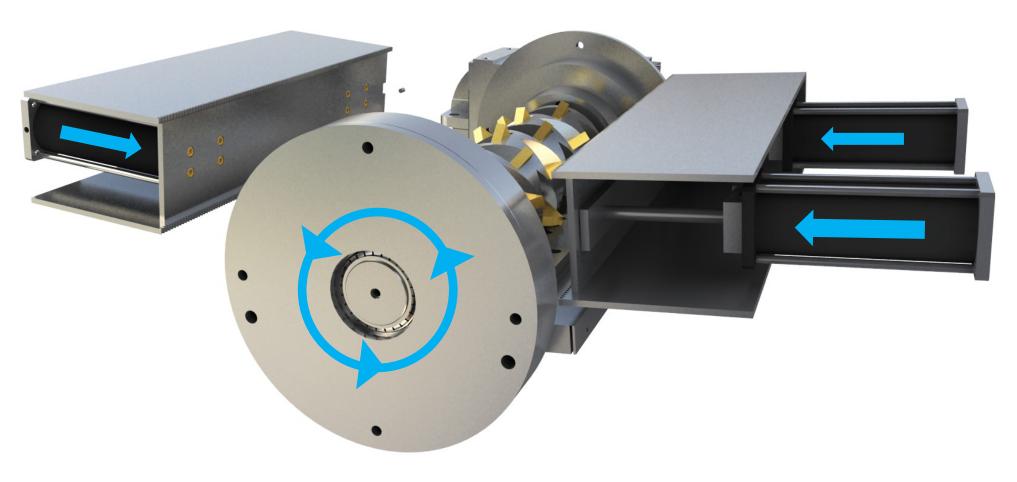


9. Stainless steel shredder integrated in the vertical chamber.



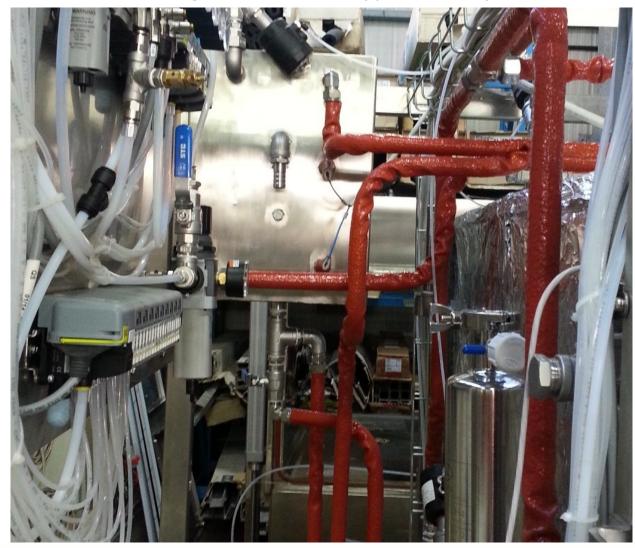


10. Dual waste pushing device against the shredder.





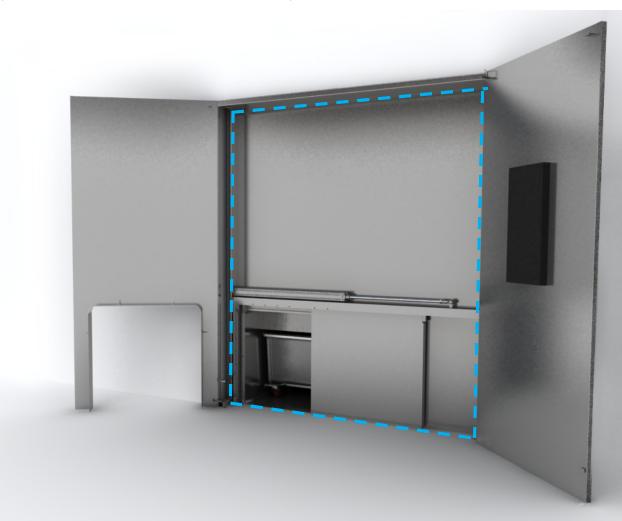
11. Chambers, doors, steam generator, condensator and pipeline insulated by kevlar fabric.







12. Bio-seal shield: separation between sterile side and clean side. (optional)





Main technical features

13. Steam generation by internal electrical steam generator made of AISI 304 (E).



14. Steam generation by direct steam connection to an external source (S).



15. Steam generation by internal electrical steam generator and direct steam connection (ES).





16. Discharge temperature control and setting device. (optional)



17. Dry mechanical vacuum pump compatible with steam.







18. Double data detection systems- Siemens integrated safety programmable electronic controller.



19. Touch screen Siemens TP900 Comfort, 9 inches, full color and high resolution.



20. Second Siemens colour, high resolution touch screen monitor on clean side. (optional)





21. Built-in alphanumerical printer.



23. Remote connection-ready. (optional)



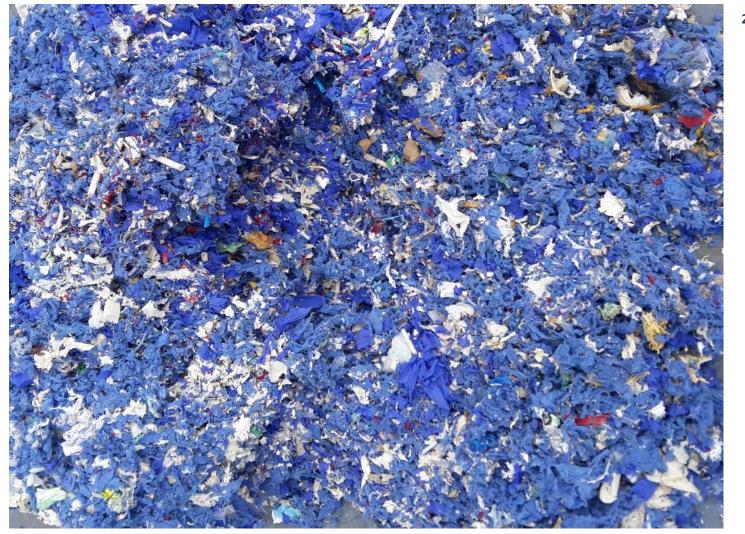
22. Usb connection for data back-up







Main technical features



24. Sterilization cycles for empty glassware, rubber materials, fabrics, liquids in sealed containers and liquids in open containers and cycle for infected liquids and materials.

Final result: Sterile, Dry, Tiny, Unrecognizable, Domestic.

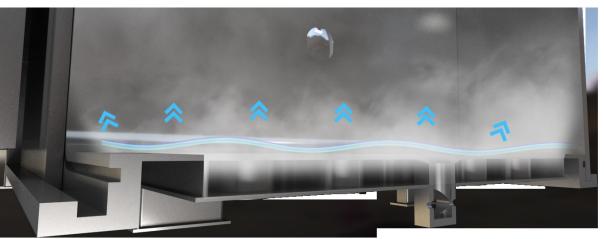
Example of shredded waste.

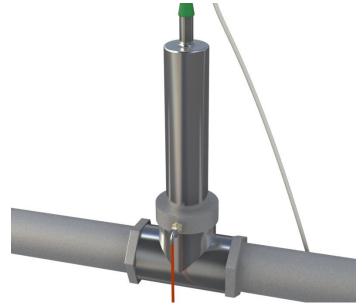


25. Microbiological filtration at discharge.



26. Condensate vaporization device. (optional)







27. Burner at chamber air outlet.



28. B&D Test Electronic / Automatic. (optional)



The position of the components, main functional units and the operational phases are designed to facilitate pre-assemblies and general assemblies, to significantly reduce times and costs in the serial production. The reduction of phases and the repetition of assembly operations, together with the optimisation of the semi-finished products, advantage the industrialisation of the production process and guarantee the constant high quality standards of the finished product.









All the commercial components are manufactured by leading companies worldwide

and easily available on the market.



Documentation



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Installation





Installation

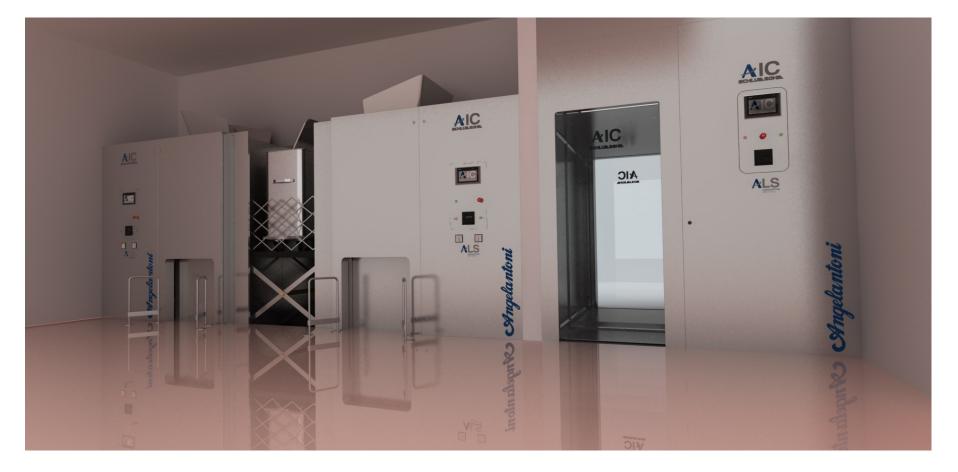




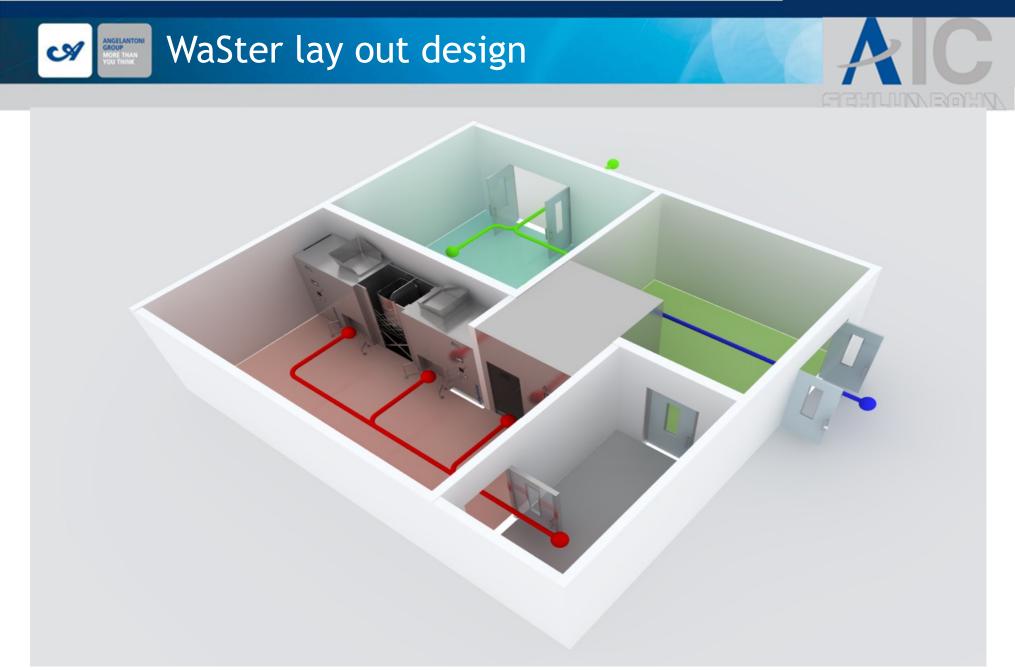
Installation







Example of WaSter installation



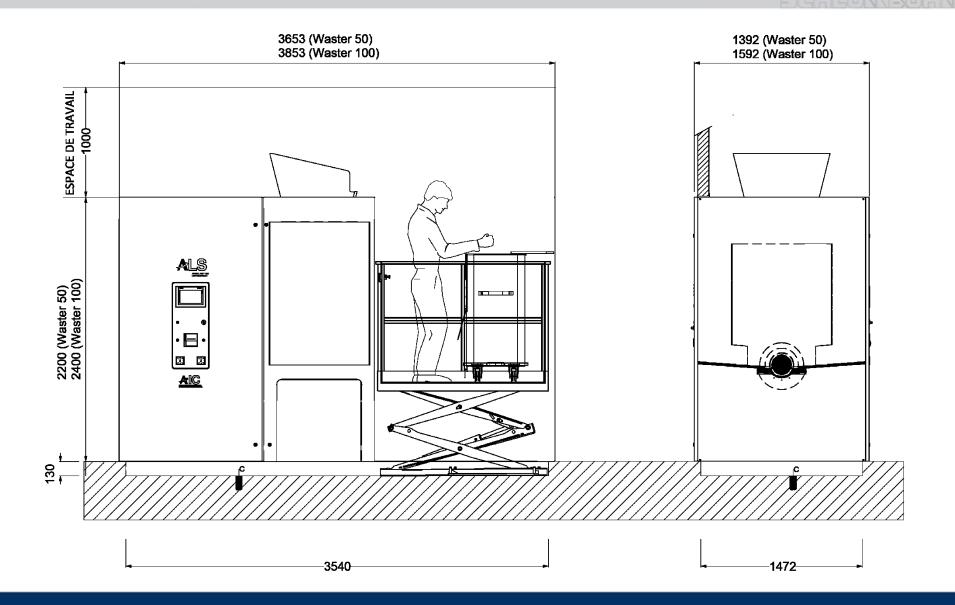
Example of WaSter installation



W	aSter	50

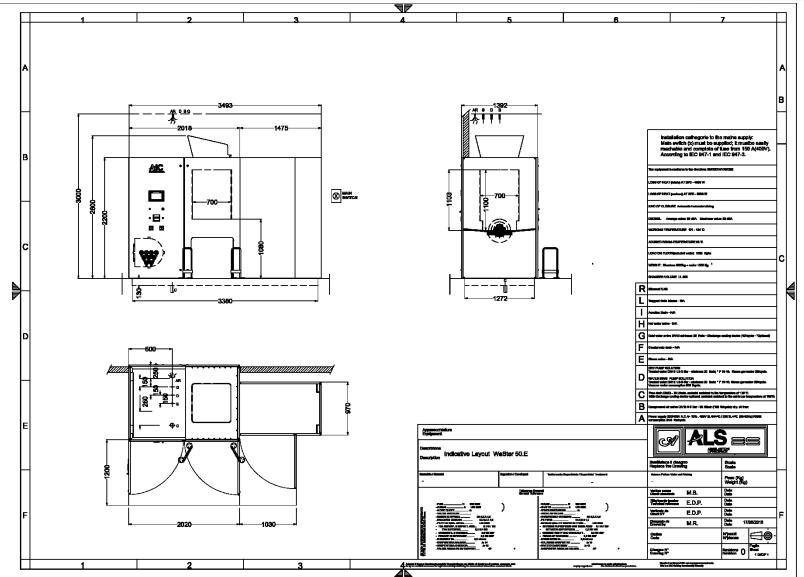
Model	Productivity	Waste weight volume ratio	Waste volume reduction ratio	Waste loading volume	Treated waste final volume	Cycle time
WaSter50	50 Kg/h	1/10	1/5	500	100	1h
WaSter100	100 Kg/h	1/10	1/5	1000	200	1h

Main Installation layout WaSter 50 - 100



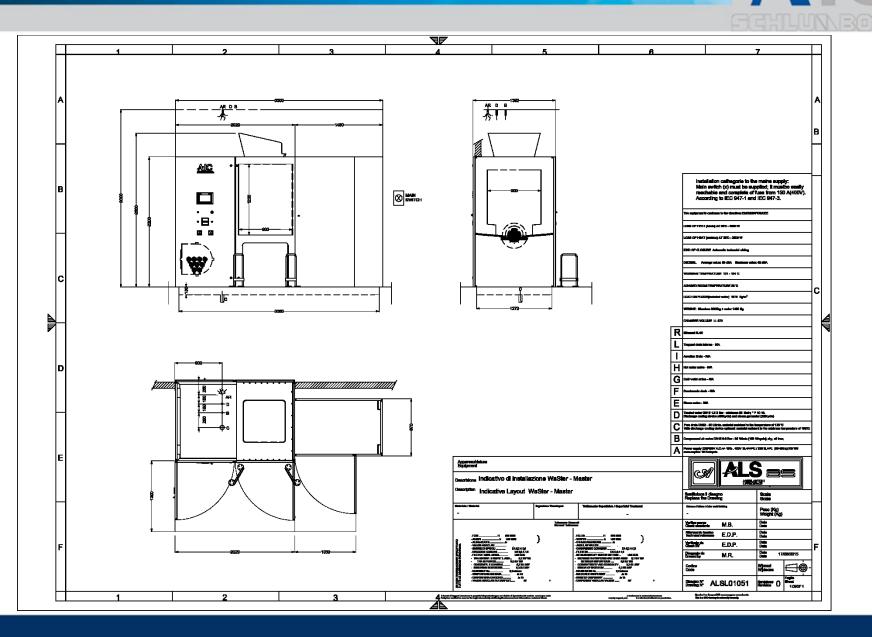


Installation layout WaSter 50



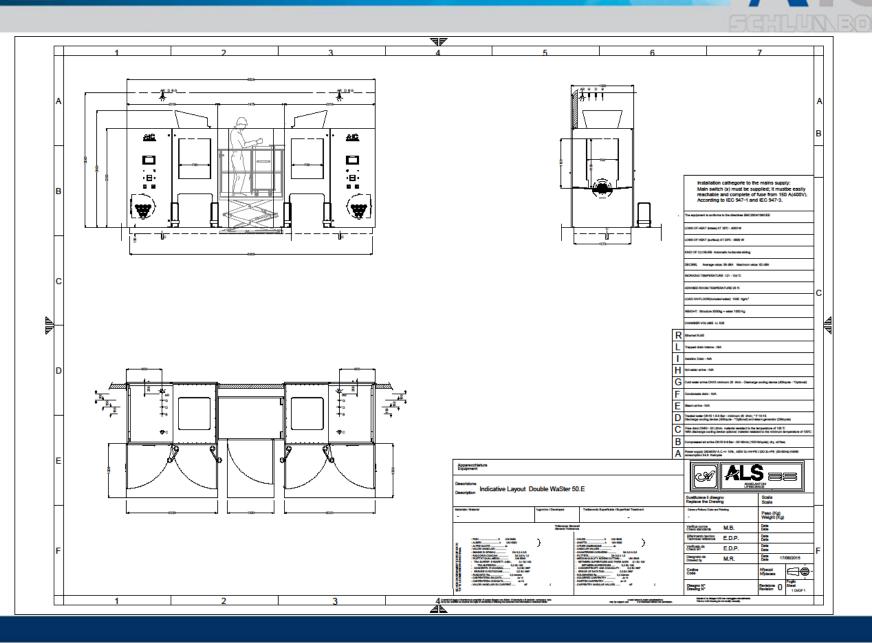


Installation layout WaSter 100



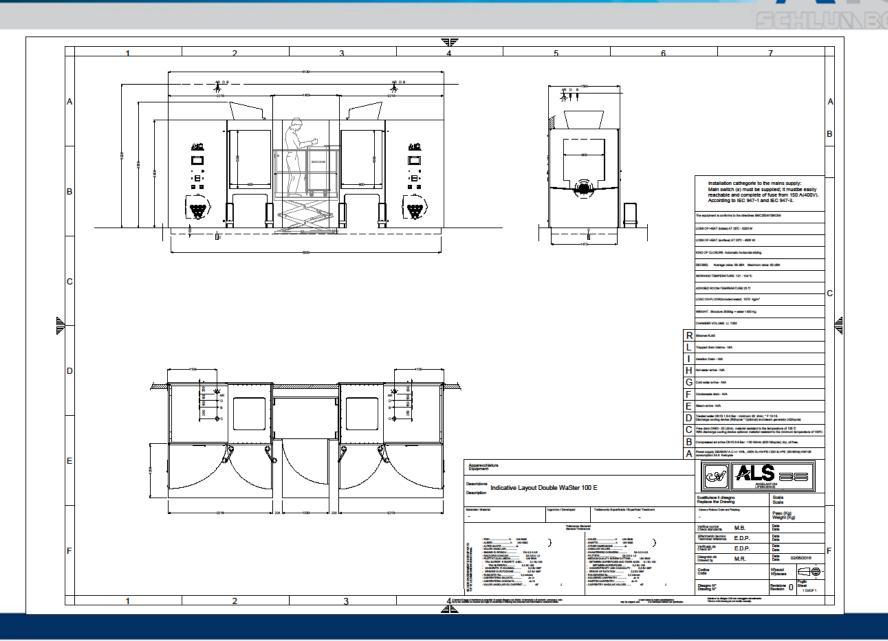


Installation layout Double WaSter 50





Installation layout Double WaSter 100









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