



## UNIVERSAL WASH – DISINFECTION MACHINE

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## APPLICATIONS

- Food & Catering
- Health Care
- Laundry





## THE TROLLEY WASH PROCESS

WASH



DRY

DISINFECT



## THE PROCESS

**Chemical**      **DISINFECTION**      **Thermal**

**WASH**      **(RINSE)\***      **DRY**

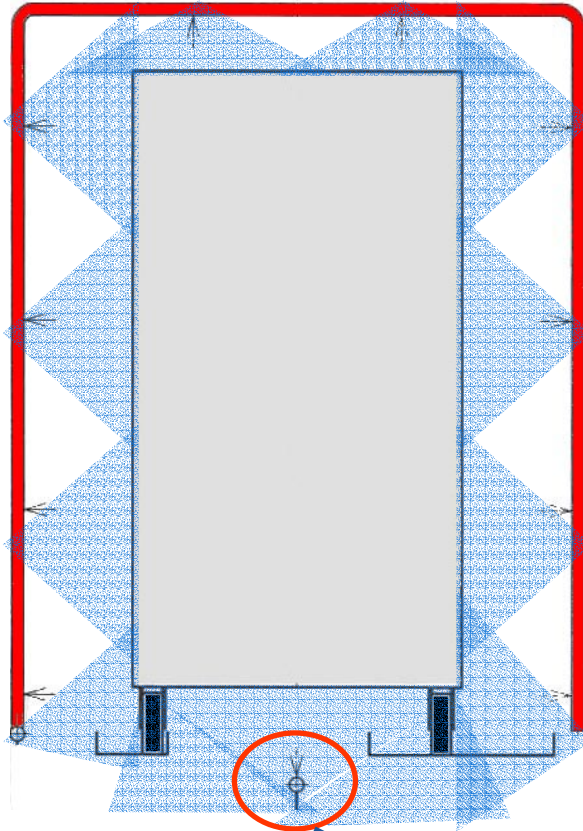
**8 - 12 min**  
**MAX**

\* RINSE = Optional  
machine equipped with additional water tank

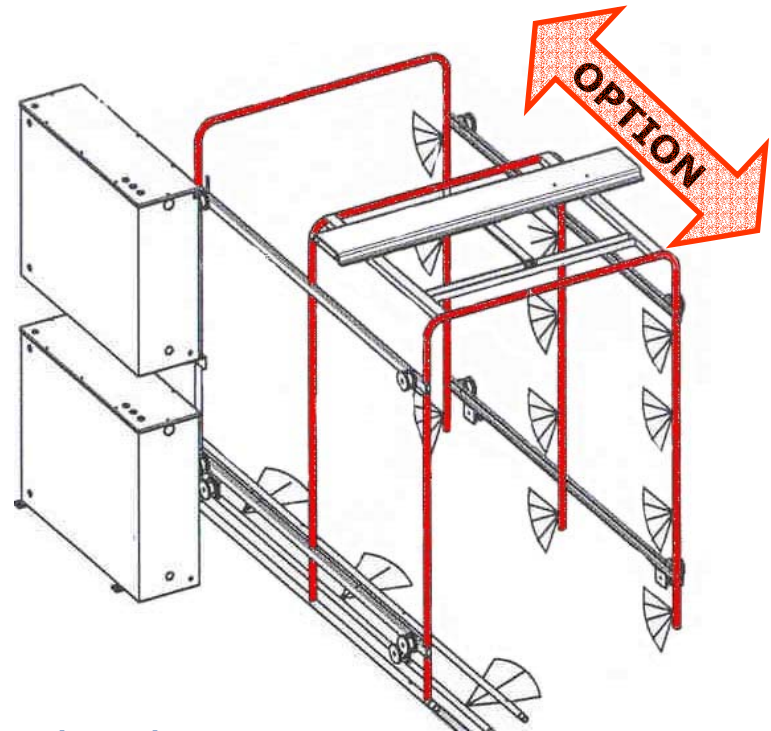
**TROLLEY DRY 'TO THE TOUCH'**



## WASHING - Complete surface treatment



Multiple rows of sprinklers on ceiling and sides of cabin



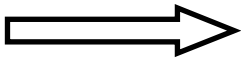
Wide angle nozzle output

Floor mounted sprinklers for trolley base and wheels



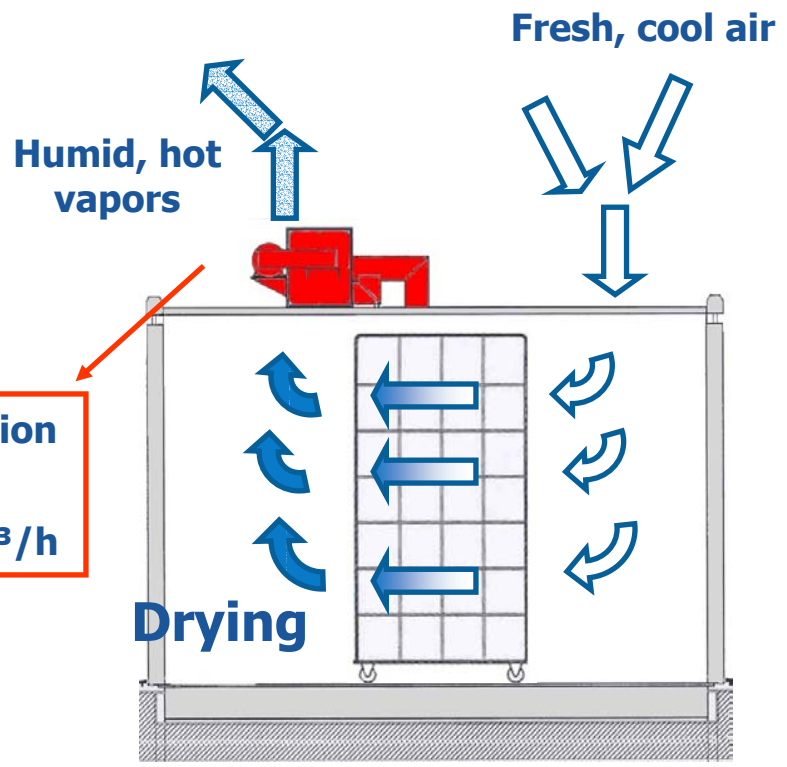
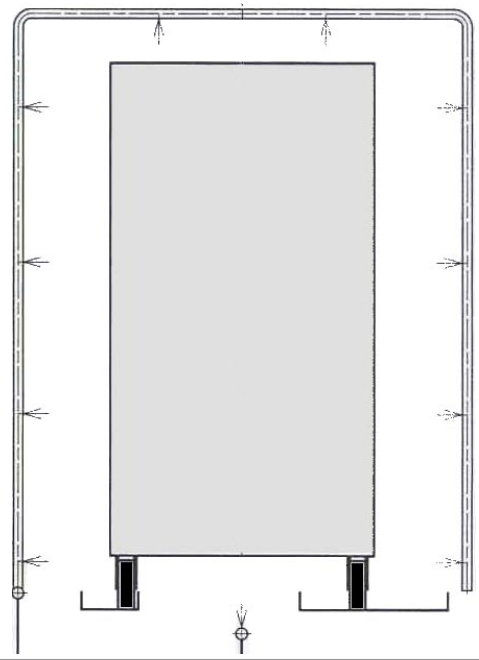
# DRYING

## 1. Cabin heat up



## 2. Evacuating moisture

- Direct steam injection
- Time and temperature controllable



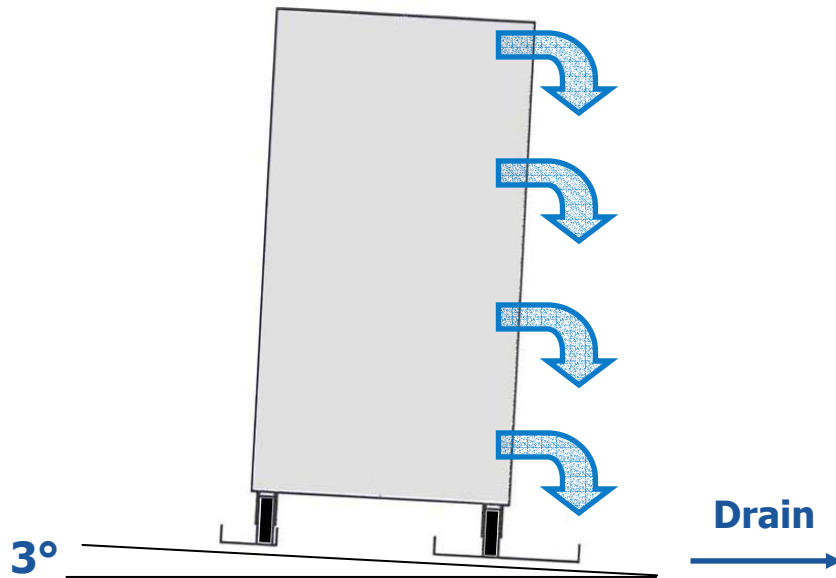


## DRYING – Challenges I

### Water 'pools' and large drops on horizontal surfaces

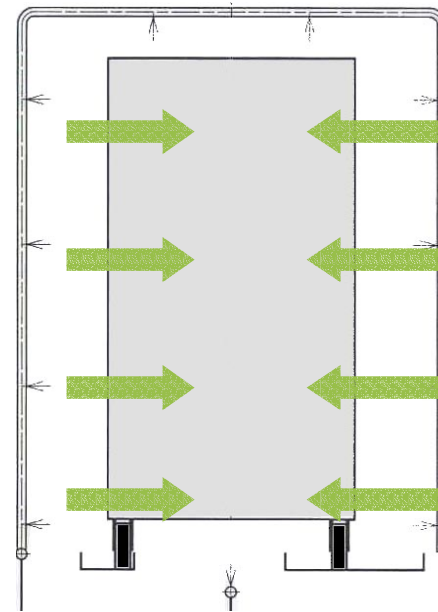
#### Solution

Lifting trolley 3° towards drain (Option)



#### Solution

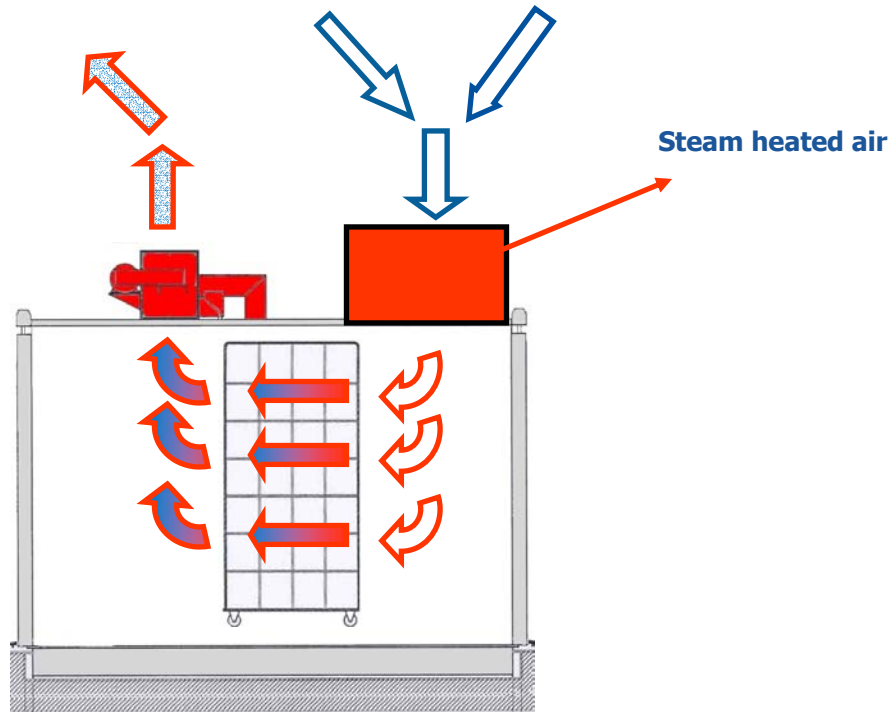
Bursts of compressed air on trolley surface



## DRYING – Challenges II

### Hard to dry surfaces

e.g. Plastic containers,...

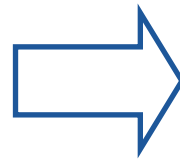


**Temperature**  
+  
**Extraction time**  
**Programmable**



## DISINFECTION

**IMPORTANT : correct conditions for disinfection**



Double sided entry.



## THERMAL DISINFECTION

### DRYING CYCLE IN TROLLEYWASH



**Cabin heated with direct steam injection**



### Moist – heat disinfection process

Disinfection through moist environment held at defined temperature during defined time period



**Lapauw Trolleywash**

- Cabin temperature programmable
- Duration time programmable through continuous steam bursts

| Temperature T in °C | A <sub>0</sub> in min |
|---------------------|-----------------------|
| 65                  | 316.23                |
| 70                  | 100.00                |
| 75                  | 31.62                 |
| 80                  | 10.00                 |
| 81                  | 7.94                  |
| 82                  | 6.31                  |
| 83                  | 5.01                  |
| 84                  | 3.98                  |
| 85                  | 3.16                  |
| 86                  | 2.51                  |
| 87                  | 2.00                  |
| 88                  | 1.58                  |
| 89                  | 1.26                  |
| 90                  | 1.00                  |
| 91                  | 0.79                  |
| 92                  | 0.63                  |
| 93                  | 0.50                  |
| 95                  | 0.32                  |
| 100                 | 0.10                  |

A<sub>0</sub> procedure

Time at which temperature is to be maintained in order to achieve lethality to bacteria



## CONSTRUCTION



- Stand Alone Concept
- Complete Stainless Steel Design
- PLC Controlled

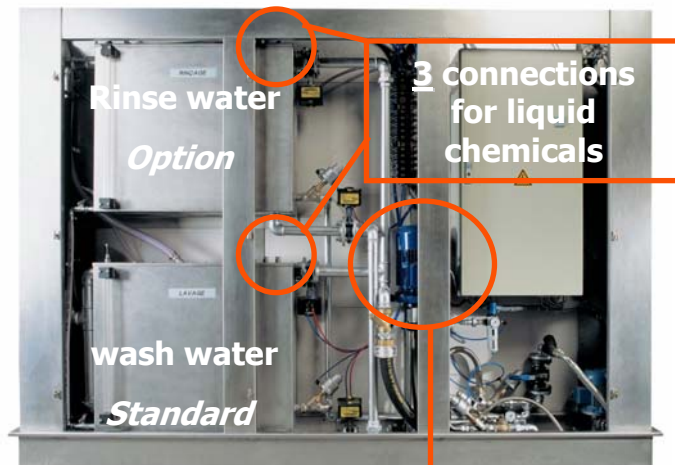


## COMPACT & STAND ALONE CONCEPT





## COMPACT DESIGN



### HEATING

#### \* WASHING

Standard : Steam

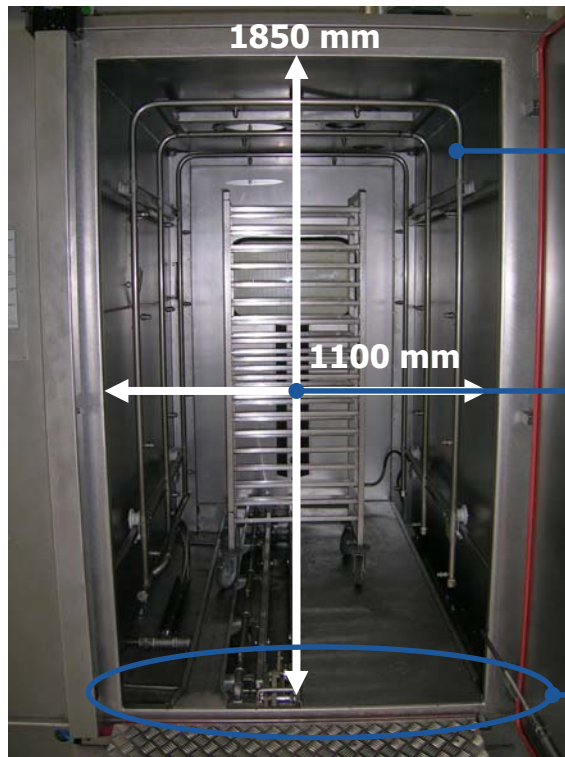
Option : Electric

#### \* DRYING

Steam



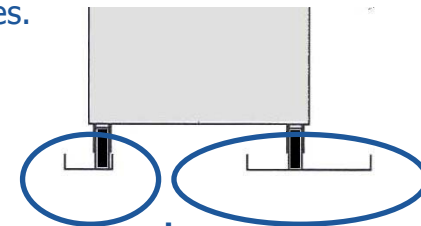
## FEATURES



Sprinklers on side walls and ceiling

Doorway adapted for most common trolley dimensions

Universal floor base adapted for all trolley types.



+  
Sprinkler row in floor



## INSTALLATIONS – Centre Hospitalier de Tulle



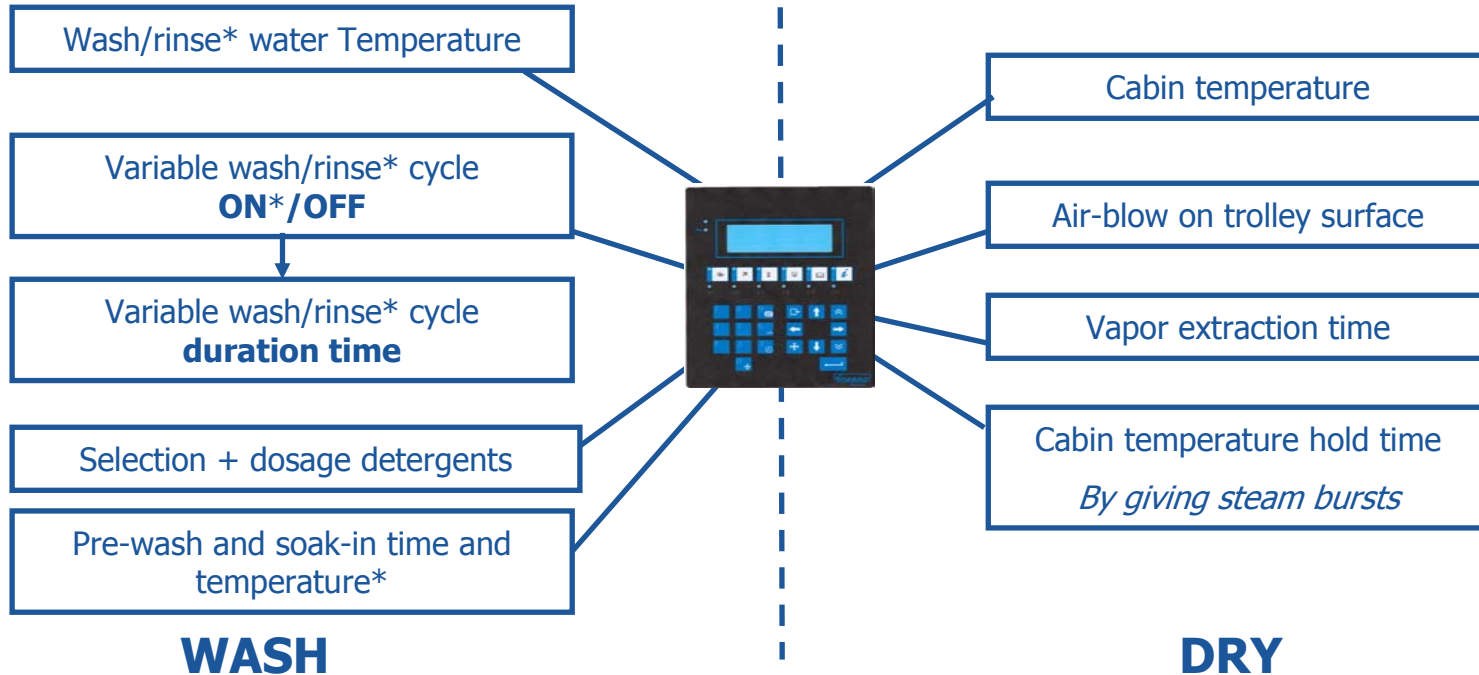


## INSTALLATIONS – Aneca - Plastic containers





## PLC controlled – main parameters



\* = option required

Up to 20 different programs

**OPTIMISED WASH / DISINFECT CONDITIONS**