

# HAC-D SYSTEM

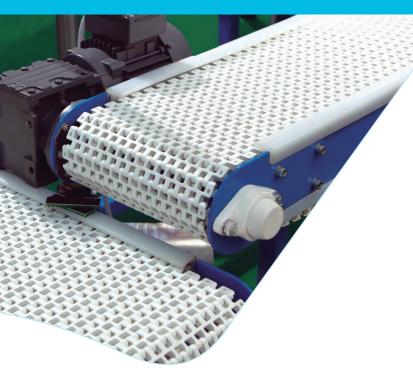
**AUTOMATIC BELT SANITISATION** 

**DECENTRALISED SYSTEM** 

ADAPTABLE TO ALL TYPES OF INSTALLATIONS

OPTIMISATION OF RESOURCES: PRODUCT, WATER AND TIME





# RELIABLE RESULTS EVERY DAY

#### WHAT IS THE HAC-D SYSTEM?

Conveyor belts in the food industry can be the source of a large number of cross-contaminations. Due to the characteristics of the plastic materials they are made of and the continuous use they are subjected to, it is common for worn areas to appear on their surfaces, which make it difficult to sanitise them correctly, becoming anchorage points for the formation of biofilms and a niche for numerous microorganisms that can contaminate foodstuffs.

To avoid this process and to achieve correct, constant and uniform microbiological results, the implementation of a Decentralised Automatic Belt Sanitising System is recommended.

The HAC-D SYSTEM is custom-designed to suit the particular characteristics of each plant. Factors such as belt speed, belt width and belt construction determine the number and type of nozzles used, as well as their configuration.

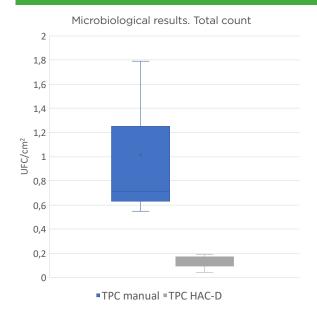
### **ADVANTAGES**

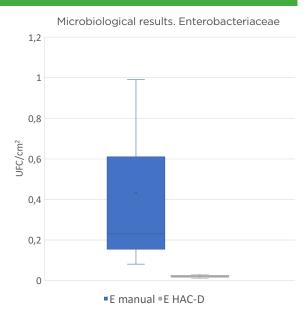
- The equipment adapts to the needs of each client. It does not require large installations. It is adaptable to all types of installations.
- Total and Enterobacteriaceae counts on the conveyor belts are reduced. Absence of pathogenic microorganisms such as *Listeria* and *Salmonella*. Automating the cleaning process means making the hygienic results independent of the human factor, ensuring a constant level of visual and microbiological quality.
- The system optimises the L&D processes of the conveyor belts, both in terms of water consumption and the use of detergents and disinfectants, as well as manpower.
- The HAC-D SYSTEM allows the possibility of carrying out intermediate sanitisation of the conveyor belts during the working day, without the need for additional manpower, thus minimising cross-contamination.

#### **EXPERIENCE**

The CHRISTEYNS Engineering Services Department has developed a new Decentralised Automatic Belt Sanitising System (HAC-D SYSTEM) that enables optimum belt hygiene conditions to be achieved after cleaning and disinfection practices. With the HAC-D SYSTEM the complete automation of the cleaning and disinfection process of all the belts of the installation is achieved.

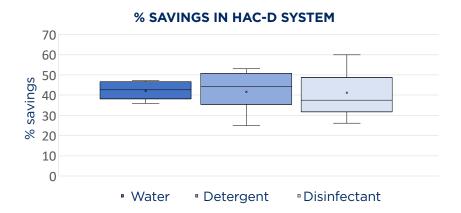
#### COMPARATIVE MICROBIOLOGICAL RESULTS OF TAPE SANITISATION





Microbiological results obtained for total counts and enterobacteria on the surface of the belts. After the study carried out, it can be concluded that the HAC-D SYSTEM achieves the maximum level of sanitisation and greater homogeneity in the microbiological results.

#### COMPARATIVE RESULTS OF L+D PRODUCT CONSUMPTIONS



The result of the study is that the HAC-D SYSTEM achieves water savings of between 39% and 45% with an average value of 42%. The decrease in detergent consumption is between 36% and 51% with an average of 42%. The graph also shows savings in disinfectant consumption ranging between 32% and 49%, with an average value of 41%.

Both the microbiological results and the consumption savings are the result of a study carried out by CHRISTEYNS technicians in different food industries.

#### **FEEL SAFE WITH US**

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#### **HOW DOES IT WORK?**

- The system delivers water, detergent and disinfectant automatically, according to the programmed times.
- It controls different pneumatic solenoid valves, which communicate the product impulsion with each of the areas to be cleaned.
- In each area to be cleaned, the necessary nozzle arches shall be arranged to achieve perfect cleaning and disinfection of the area.

#### **DECENTRALISED** SATELLITE

Equipment made of stainless steel connected directly to the water inlet. The chemical product is dosed through the venturi system. It is a multifunction equipment that allows the automatic flushing, foaming and disinfection



#### **INTERNAL AND EXTERNAL NOZZLE SYSTEM**

The nozzles are used for the application of water, foam and disinfectant on both belt surfaces. The number and arrangement of the nozzles is determined by the belt structure and width.



### **EQUIPMENT** WITH OR WITHOUT PUMP

The satellite is available in two versions: with or without pump. The model without pump requires a minimum inlet pressure of 12 bar. If a pump is required, the minimum water inlet pressure must be 2 bar.



and disinfection software for each of the belts as required.

- Nº of programs: 10.
- Zone control valve: 16.
- Pressure adjustment on each flushing line.
- Programming from HMI/PC/ PHONE/TABLETS.
- · Built-in Wifi.
- · WLAN connections.
- Zone names.
- · Product names.
- · Connection of chemical level switch.



# OPTIONAL MAINTENANCE CONTRACT

with regular reviews

with regular reviews

1 YEAR WARRANTY





#### PRODUCTS FOR TAPE L&D

CHRISTEYNS has a complete range of products for automatic belt cleaning and disinfection.

#### **DISINFECTANTS**

#### **DECTOCIDE® A30**

DISINFECTANT
FOR GENERAL USE
Bactericidal and fungicidal disinfectant based on tertiary amines with high biocidal effectiveness.
Effective product in the presence of organic matter with high speed of action.



#### **DETERGENTS**

#### **DESENFORT® NF**

ALKALINE FOAMING Product with great power to dissolve and emulsify grease and dirt in general. It has a low freezing point. Suitable for storage at low temperatures.



#### **BETELENE® OX25 FOAM**

FOAMING DISINFECTANT
Peracetic acid based disinfectant
with high efficacy for use in cleaning open surfaces in food industries. It is a powerful oxidant that
contributes to the breaking down
and solubilisation of proteins and
the removal of residues.



#### **ULTRA G730**

ALKALINE FOR SURFACES
Foaming product with a high degreasing capacity, suitable for daily cleaning in the food industry. The product allows fast drying of surfaces. Gives a shiny appearance to surfaces.



#### **QUACIDE® MC7**

SUITABLE FOR SURFACES Bactericidal and fungicidal disinfectant based on a synergistic combination of quaternary ammoniums, surfactants and sequestering agents that enhance its biocidal properties.



#### **PINARAN® ESPUMA ECO**

**FOAMING ACID** 

Effective and environmentally friendly. High acidity product suitable for the removal of mineral and organic incrustations on all types of surfaces.



## TECHNICAL INFORMATION

	WITHOUT PUMP	WITH PUMP
Min inlet pressure	12 bar	2 bar
Maximum inlet pressure	25 bar	10 bar
Maximum output pressure	-	16 bar
Quantity of different chemicals	1-3	1-3
Maximum water flow	270 l/min	270 l/min
Injector size	150 (8)/300(16)/450(24) I/min	150 (8)/300(16)/450(24) I/min
Controller + hmi	incorporated	incorporated
Power	-	6 kw



#### ANY QUESTIONS OR DOUBTS?

Contact your local CHRISTEYNS technical manager and we will help you find the right solution for you.