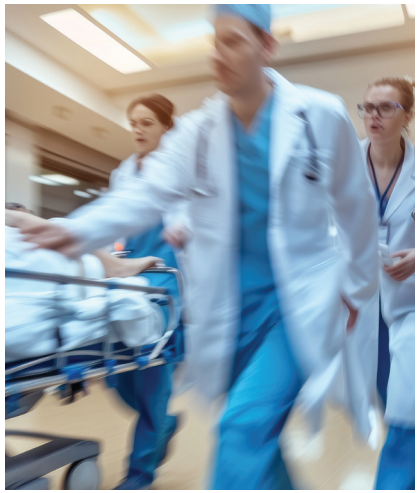
Game-changing Waste Collection for Healthcare















Envac enables cleaner, safer, and more efficient hospitals

Hospitals face unique waste management challenges—limited space, constant activity, and high hygiene demands. Traditionally, waste and soiled linen are stored locally in the wards and transported in corridors and elevators. Patients and healthcare professionals risk exposure to both pathogens and odours.

By using fully automated collection through sealed pipes hidden in walls and ceilings, colony-forming unit (CFU) levels in the healthcare environment are minimised, and risks for cross-contamination are eliminated, helping to prevent and reduce risks of healthcare-associated infections (HAIs).

Healthcare waste & associated risks

Ugent need for smart waste collection system

9 Million HAIs per year in Europe)
Leads to 25 million extra hospital days

60% of healthcare facilities
Lack safe, proper waste management systems

15% of medical waste is hazardous
May be infectious, toxic, or radioactive

€13–24 billion in HAI-related costs
Europe spends billions annually due to poor infection control

Manual Waste Handling = Hygiene Risk
Exposure increases infection risk for staff and patients

Prevents cross-contamination

Minimises manual handling

Modern, clean & efficient

Benefits of Envac's automated system - supporting hygiene, compliance, and care

Reduced cost & time

Less wear & tear

24/7 availability

Solutions for Healthcare Facilities



Collection System for Waste and Recyclables

Traditional waste handling takes up valuable space and risks cross-contamination in the hospital environment. Envac optimises hospital waste management by hygienically transporting it with a sealed vacuum system to a central collection point. Smart multi-fraction inlets simplify sorting, reduce manual handling, improve hygiene, and save space, labour, and operational costs.



Infectious Waste Collection System

Managing hazardous hospital waste - especially infectious and sharps waste - demands strict routines, special containers, and detailed labelling. Transport must follow strict safety protocols. Envac simplifies this by enabling near-source disposal and enclosed pipe transport to an on-site treatment facility, converting it into non-hazardous waste. The result: safer handling, higher efficiency, full compliance, and lower costs.



Soiled Linen Collection System

Handling soiled linen risks exposing staff and patients to airborne pathogens, and heavy bags can cause strain-related injuries over time. Frequent transport through corridors and elevators negatively disrupts hospital logistics, decreasing accessibility. Envac's 24/7 smart linen collection system minimises physical contact, supports infection control protocols, and maintains a clean, efficient, and compliant environment.



Kitchen Waste Collection System

Envac's kitchen waste solution eliminates the need for bins and bags by allowing direct disposal of waste into inlets integrated within the food preparation area. The waste is then swiftly transported through vacuum-sealed pipes to a central collection unit, removing transport paths and ensuring a clean, odour-free kitchen that complies with the most stringent hygiene requirements.

Healthcare Waste & Soiled Linen Management

Future-Proofing Hospital Infrastructure

Given the high patient volumes experienced by hospitals and the heightened demands for hygiene and optimal working environments, traditional waste and soiled linen collection methods have become increasingly obsolete. Implementing smart solutions for collecting waste, soiled linen, recyclables, kitchen waste, and infectious waste can significantly save time and cost while substantially improving the hospital's productivity and hygiene standards.

Infectious air valve

Air inlet valve for the infectious waste collection (IWC) system.

Containers

Containers for waste and recyclables. Material is compacted to minimise truck collections.

Air filtration system

Air filtration system ensure that transport air is purified before being released into the open air.

Infectious waste

Infectious waste collection (IWC) system is a stand alone and hermetically sealed system.

Infectious waste treatment

Infectious waste treatment; converts the hazardous waste into non-hazardous waste.



Soiled linen collection

Soiled linen collection drop bags into trolleys for transport to either local or external laundry facility.

Air valve

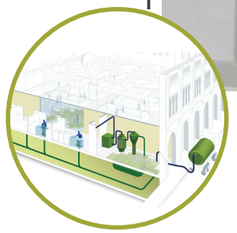
Air inlet valves for waste/ recyclables and soiled linen transportation systems.

Collection station

Collection station usually located at the hospital's logistic center for easy truck access.

Kitchen Waste System

Kitchen Waste System is a stand-alone, tailor-made, integrated system for kitchens and staff canteens, ensuring fast and hygienic removal of the large volumes of food waste directly at the source.



Inlet point

Inlet point with disposal inlets for different fractions. Can feature fully touchless user access control.

Pipe network

Pipe networks for the different soiled flows connect the disposal inlets to the collection station.

Smart automation

Processes are controlled by Envac's self-learning Automation Platform (EAP) and can be monitored by the Hospital's BMS (Building Management System).

RETURN ON INVESTMENT

3-6 Years

Hospitals typically recoup their investment in few years through operational savings, improved infection control, and reduced waste management expenses.

TYPES OF WASTE

5+ fractions

The Envac system in healthcare facilities is capable of handling general waste, recyclables, soiled linen, infectious waste, and kitchen waste efficiently.

Improving hospital efficiency and hygiene by eliminating cross-infection risks and streamlining waste and soiled linen handling. Replacing wheel-based corridor transportation with our sealed and efficient vacuum transportation system will free up valuable space, improve workflow, and ensure a cleaner environment for patients and healthcare professionals.



Challenges with soiled flow management using robots and/or manual labour

- Need wide corridors to prevent congestion and cross-contamination risks
- Risk of exposure to airborne pathogens from soiled linen and waste transports
- Extensive access throughout the hospital imposes security issues
- Space in critical areas for intermediate storage, access, loading, unloading and charging
- Heavy and hazardous handling risk causing strain injuries
- Relying on the presence of manual labour
- Risks of human errors and medical leave
- Elevator capacity for vertical movements
- Shorter lifespan and high investment cost
- Frequent maintenance required
- High stress at peak loads and sudden high volume causing events

Invented for a Hospital. The world's first vacuum system for waste collection was launched, by Envac, at Sollefteå Hospital, Sweden in 1961. This system is still operational and contains many original components.

Envac healthcare installations



25 countries
Trusted by leading healthcare facilities worldwide for safe and efficient waste handling.

115+ cities
Improving hygiene, operational efficiency with smart waste collection systems.

180+ systems
Proven technology reducing cross-infection risks and improving sustainability in healthcare facilities.

Major global customer references:

- Landspítali Hospital, Iceland

6 tonnes soiled linen/day | 6 tonnes general waste/day | 0,5 tonnes recyclables/day

- Ng Teng Fong General Hospital, Singapore

12 tonnes waste output/day | 81 inlets | 6 chutes

- Sengkang General Hospital, Singapore

18 tonnes waste output/day | 212 inlets | 28 chutes

- Hainan Cancer Hospital, China

12 tonnes waste output/day | 3 fractions: soiled linen, general & kitchen waste

- Childrens Healthcare of Atlanta, USA

54 inlets | 2 fractions: general waste & recyclables

- St Olav Hospital, Norway

5 tonnes waste/day | 120 inlets | 20 Sort-More systems | 4 fractions

- Ersta Hospital, Sweden

0,3 tonnes waste/day | 32 inlets | 2 fractions: general waste & soiled linen

- Sant Pau Hospital, Barcelona

3 tonnes general waste/day | 3,5 tonnes soiled linen/day | 44 inlets

- Sírio-Libanês Hospital, Brazil

8,5 tonnes soiled linen/day | 8 tonnes general waste/day | 116 inlets

- Centre Hospitalier Universitaire de Rennes, France

162 inlets | 4 fractions: soiled linen, recyclables, infectious & general waste