KEN HYGIENE SYSTEMS®

KEN AL10

Automated load carrier for instrument racks in a CSSD

Challenges in a CSSD

The vital role of the Central Sterile Services Department is to ensure clean and safe reprossesing of medical equipment in order to prevent infection and contamination.

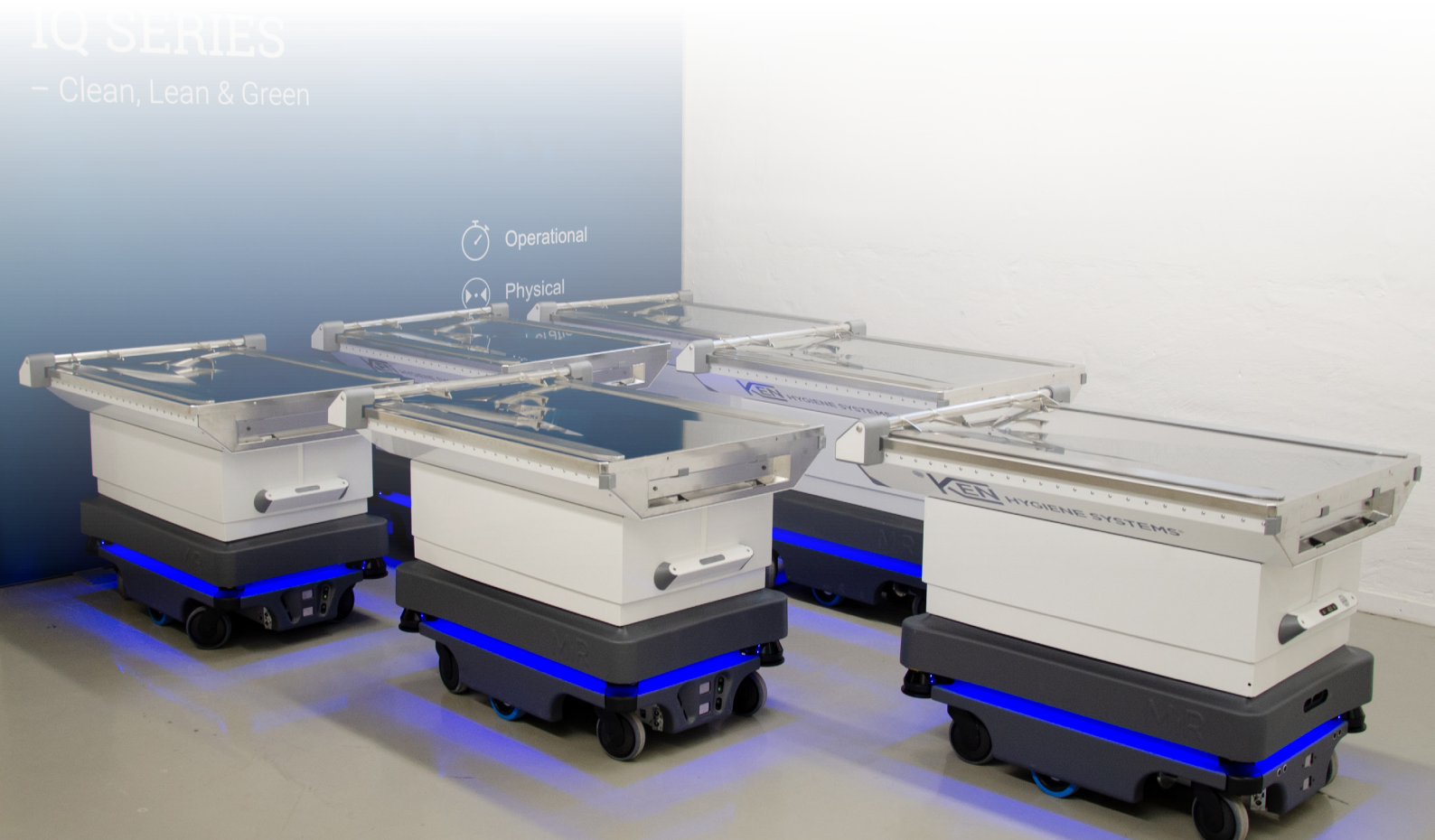
The work in a CSSD can prove quite stressful for the employees with challenges such as;

- ⚠ **Heavy pushes and lifts, as well as bad working positions**
- ⚠ **The necessity of touching hot surfaces**
- ⚠ **A busy and hectic working day**
- ⚠ **A noisy working environment**
- ⚠ **The employees having to keep track of many machines and racks at the same time**
- ⚠ **Communication between the clean and unclean side is inconvenient**

The solution - The KEN AL10

The KEN AL10 is a robotic system that handles the transport of racks between instrument washers, storage tables and the return hatch in a CSSD. The AL10 relieves the staff of manual transportation of the heavy goods so they can focus on the important work of cleaning and packing instruments.

Furthermore, the robot ensures efficient operation as it offers continious operation 24/7/365, thus ensuring constant loading and unloading of washers in a 24-hour operation. Also, by replacing manual trolleys with this automated solution, the working environment within the CSSD is improved and the noise level is significantly reduced.



Sustainable Development Goals

An increasing global focus on sustainable development places high demands on companies in relation to the UN Sustainable Development Goals.

At KEN HYGIENE SYSTEMS we have identified SDG no. 3, 8 and 12 as our main focus, since we believe that these goals are where we can have the greatest impact on society.

We create global health and well-being by delivering innovative and sustainable hygiene solutions

We prevent infection and contamination as well as contribute to a good working environment and responsible resource consumption

We are a healthy and socially responsible company

Good health and well-being

To ensure the highest and safest reprocessing of instruments, it is vital that the instrument washers complete the correct washing cycle according to the equipment being washed. The AL10 ensures that the racks are transported to the right machine and the correct washing cycle is automatically started due to the RFID tags.

The AL10 allows for dynamic task priority. If an urgent order for new goods arrive, the AL10 allows you to skip the queue of racks. As soon as the next instrument washer is available, the AL10 will prioritize the chosen task.

To optimize the performance of the instrument washers, the entire flow is monitored and informs the users of the current status of the machines and the location of the individual racks. If any user interaction is required, the user is automatically informed.

The robot ensures that there is minimal wasted time between two washes, so that, for example, surgical equipment is ready again as quickly as possible after reprocessing.

- ✓ **Time saving**
- ✓ **Assurance of correct wash**
- ✓ **Dynamic flow of racks through the CSSD**
- ✓ **RFID tags**
- ✓ **Easy overview of the flow**
- ✓ **Optimal utilization of the machines**

Decent work and economic growth

The AL10 helps to automate the heavy pushing, lifting, twisting and bad working positions that the staff would otherwise have to perform.

The employees do not have to handle the hot racks that have just come out of the instrument washers, thanks to the robotic solution taking over the transportation of the racks. Also, the AL10 will free up resources so that the employees can perform other important work tasks, which can lead to better well-being among the staff and fewer sick days.

The AL10 helps to create a better overview and manage the logistics for the users by providing a quick overview of the entire wash flow in the CSSD, as well as by ensuring automatic transport of racks from the instrument washers to the desired working stations.

Additionally, the robot is incredibly quiet, which contributes to a better working environment. It is possible for the users to work side by side with the robot, since it is able to navigate around dynamic objects.

- ✓ **Quiet working environment**
- ✓ **No heavy lifts, pushes or bad working positions**
- ✓ **Better overview**
- ✓ **Focus on primary tasks**
- ✓ **Navigates safely around the staff**
- ✓ **Better well-being and fewer sick days**

Responsible consumption and production

For optimal utilization of resources, the AL10 is programmed to evenly distribute the workload between the different instrument washers, which evens out the wear and improves the flow through the CSSD. Furthermore, this gives the CSSD the opportunity to spread out peak load periods over longer periods.

An even wear on the instrument washers can result in a more predictable and uniform service pattern, making it possible for the users to plan when machines are to be serviced. This will mitigate the risk of machines being out of service during peak periods.

In terms of validation, the AL10 knows what instrument washers that are validated to what equipment. This means that only a few machines need to be specifically validated to specific requirements - for example Da Vinci Surgical equipment.

The system dynamically adapts to the amount of available instrument washers, making it possible to turn off machines that are not currently being used. In this way, the users can reduce the amount of active machines on less busy days by turning them off, thus reducing the operational resource consumption. This is also convenient during maintenance of the instrument washers, since this will not disturb the rest of the system.

- ✓ **Even out workload**
- ✓ **Distributes the tasks**
- ✓ **Reduced amount of validated programs needed**
- ✓ **Space saving**
- ✓ **High productivity with less capacity**
- ✓ **Enables cost effective investment**

- ✓ Quality assurance
- ✓ Cost saving
- ✓ Increased throughput
- ✓ User friendly
- ✓ Improved work environment

360°

TRANSPORT POSITION	SERVICE POSITION

1. HEIGHT ADJUSTABLE	2. PUSH FUNCTION	3. RACK DELIVERY

Sustainability Statement

KEN HYGIENE SYSTEMS encourages a culture for sustainable development with a special attention to the UN Sustainable Development Goals No.'s 3, 8 and 12.

In the development of our machines, we show consideration for the environment and our customers by offering a very low consumption of water, chemistry and power. Furthermore, we ensure high productivity and an optimization of the work flow as well as deliver flexible solutions.

Safety, quality and the environment are key focus areas at KEN HYGIENE SYSTEMS A/S, and we work continuously with optimizations and improvements at all levels of the organization from sales and development through production, delivery and service.

KEN HYGIENE SYSTEMS

People and society depend on companies' ability to make responsible choices regarding hygiene and environment – and that companies are operated efficiently and competitively.

KEN HYGIENE SYSTEMS supplies top quality washing solutions to companies and healthcare services for cleaning critical equipment. Our solutions include everything needed to ensure efficient installation and operation – consulting, devices, documentation and servicing.

Our solutions are based on the needs of our customers and users. Our relationship with our customers is based on openness and trust in order for them to make informed choices and implement the best solutions.

KEN HYGIENE SYSTEMS®

Clean, lean & green

KEN HYGIENE SYSTEMS A/S
Bøgebjergvej 60
DK-5672 Broby
Phone: +45 62 63 10 91
www.ken.dk

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