

# China: UHF RFID management system in the hospital textile rental service

## The importance of asset control for an industrial laundry

Nowadays, the full and fast control of the industrial process has become a critical prerequisite for competitiveness and efficiency in the laundry market. For an industrial laundry it is crucial to have a cost structure that streamlines the operations focus on value adding activities.

As a matter of fact, automation plays a very important role in this framework by letting industrial laundries increase the productivity per person, reduce manual labor, save costs and gain efficacy. However, operations are just a part of this picture. Another important role for a laundry is its asset control. This means knowing at any given moment how many textiles are in circulation, where they exactly are, how many units are processed per day, how long they last and why.

RFID technology properly helps industrial laundries answer these questions by significantly improving their textile identification and sorting processes.

The following case study from Shanghai Jesse, a Chinese hospital textile rental service and one of China's leading industrial laundries, shows how RFID technology has been successfully implemented.

## Shanghai Jesse, industrial laundry serving hospitals in China and using Datamars RFID systems

Shanghai Jesse (SJ), the largest medical textile washing and rental service company in China, has been using UHF RFID since 2008 and have been utilizing Datamars FT301 transponders starting in 2015.

SJ mainly used them in governmental hospitals of Class 3 / Grade A (the highest grade in the hospital classification by Ministry of Health in China), in particular in the Hunan, metro Shanghai and Guangzhou regions.

According to SJ, UHF RFID technology helped both laundry factories in tracing textiles and to hospitals in receiving/dispatching textiles. The benefits of UHF RFID implementation included reduction of more than 100,000 textile counting mistakes, the decrease of the relevant costs and strong improvements in the hospital infection control to stay in line with the JCI (Joint Commission International) certification requirements.

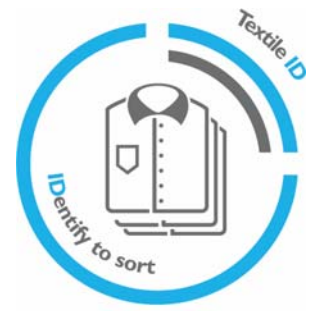
The use of RFID technology in rental textile services brings several advantages to hospitals (SJ' customers, in this case). As an example, it is worth mentioning the case of the Huashan hospital in Shanghai; a SJ' customer that implemented the UHF RFID technology in its rental textiles not only in order to gain efficiency and costs reduction, but also to obtain the JCI certification. As a result, the following benefits have been recognized:  
Improving patient safety and disease recovery as well as better linens for patients from a comfort standpoint, e.g. in helping the quality management of bed materials (bed linen);  
UHF RFID made it possible for the operating personnel not to touch any potentially infected textiles. The infection control issue is usually considered the highest risk for both patients and medical employees. Thanks to UHF RFID technology, textiles can be tracked efficiently in order to prevent risk of secondary infections  
UHF RFID data management made possible to eliminate manual paper work, which optimizes the ease of the internal control processes for Huashan Hospital. Our UHF solution made it possible to integrate within their management system control processes which allowed for further analysis and improvements.

Proud of the huge success obtained with the implementation of the RFID system in the Shanghai Huashan hospital, Mr. Zhu Zhaobang, Vice General Manager at SJ, states: "Shanghai Jesse will continue to promote the use of UHF RFID not only at the Huashan hospital in Shanghai, but also in 14 additional large public hospitals, in order to expand our textile rental and washing business."

Moreover, the use of RFID technology has brought advantages not only to SJ' customers (the hospitals in this case) but also to its laundry factory itself.

From SJ' perspective, the following are the advantages given by the adoption of the UHF RFID system in its factory:

The time taken to count the textiles has been reduced from a few minutes to a few seconds thanks to the capability of UHF technology of reading an entire bag/trolley of textiles in a few seconds.  
Reducing the manual labor and non-value added activities. Thanks to RFID, workers that were previously engaged to count and check manually textiles can be now moved to other value-added activities.



Reducing the risk of infections for SJ' employees by avoiding direct manual contact with potentially infected hospital dirty textiles (since with RFID all dirty textiles are read directly in their bags/trolleys).  
Reducing space occupancy for inventory by getting rid of unnecessary stocks and saving on annual purchases. With RFID, laundries can now control their textiles during their entire lifecycle by knowing how many textiles are in circulation and where they are exactly and so they are able to plan their textile purchases carefully.  
Reducing cost of paper documentation management and improving the ability to verify and analyze data regarding the delivery process. Data is now electronically processed and managed in a faster way.  
Improving business relationships between SJ and its customers. RFID lays the foundations for a long term business relationship. Nowadays customers are more demanding in terms of reports about laundry service and this is even more important if they are the owners of the textiles.

As a result of SJ's cooperation with Datamars and the successful application of Datamars' UHF RFID tags in the greater Shanghai area, SJ projects the following scenarios for the next 5 years:

SJ' factory's operating process will be consolidated and unified. At that time, a modern logistics management system will be further enhanced;

SJ will align with 4 to 5 laundry factories across different regions in China

SJ aims to gain a market share of 500,000 hospital beds (in terms of bed linen washed).

As final comment of his testimony, Mr. Zhu Zhaobang concludes:

"The mechanical and electrical performances of Datamars transponders really allowed us to take full advantage of RFID UHF technology. We believe that thanks to RFID, Shanghai Jesse can have an improved development of the medical textile rental and washing service in Chinese market."