

Puerta del Mar University Hospital Laundry

The new service is to be decentralised and equipped by Girbau

The University hospital Puerta del Mar (Cadiz) will have their new external laundry in operation by the end of the summer in totally new installations equipped by the Spanish multinational company Girbau. The project will effect the modernisation of a service which is more than 25 years old.

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In keeping with the new laundry decentralisation tendencies within large collectives, Cadiz's Puerta del Mar hospital has opted to transfer its new laundry to a recently constructed commercial building in Zona Franca within the Andalusian capital.

This new external laundry project, the construction and equipping of which has been bestowed upon the multinational Girbau, will permit the health centre to make use of the 400m² of basement occupied by the old installations and move the service to an area of 900m².

Likewise, the reorganisation of work methods and the incorporation of the latest generation equipment, estimated to be around 2.8 million euros, will enable the workforce of 64 to raise their wash capacity to up to 1,100 kilos of laundry per hour.

For the design of the new installations, the allocation of which was made by means of a competitive open tender, Girbau adhered to the parameters as laid out in the specification clauses of the proposal, as well as the needs and suggestions made by Cadiz's health centre team. The final project will result in a laundry which will represent the most modern in Andalusia and which divides the installations between a dirty zone for the reception and laundry wash and another clean zone where the textiles have already been disinfected. Between the two areas, a sanitary barrier will be in operation to avoid possible contamination.



Balanced costs

Although the transportation and distribution of the laundry costs rise on externalising the laundry, the costs of production reduce with a more efficient organisation of the work and the optimisation achieved by the latest technology equipment. Similarly, the hospital's General Services manager, Juan Fernando González, points out, that in addition to raising the production capacity and the quality of the results, the changes will also contribute towards improving working conditions on mechanising many of the processes which previously required a great deal of human exertion and organisation.

Monorail loading system

For the distribution of the dirty laundry to the washing equipment, Girbau will install a monorail loading system, made up of 5 storage lines with a capacity for 58 bags, plus two bags at each unloading point. The process will be automated and will respond to work sequences programmed into a control computer and where the information will be registered regarding the weight of the load, wash program, client reference number and the storage line to where each bag will be directed.



A monorail loading system transports the bags of dirty linen direct to the batch-washer

Wash system

The wash system will include a Girbau TBS-50, 8 module model B batch washer, able to carry out an intensive process for either very dirty linen or that which requires total disinfection. In addition it is able to register and certify that the conditions for

each washing programme are complied with (time, temperature, dosing, etc.) This equipment also has a disinfection option.

This phase also has two LW-200 washer–extractors with sanitary barrier, for the washing of plastic items, foam, cushions, etc. Each one has a 200kg capacity, drums with three compartments and a loading door in the dirty area and the other unloading door in the clean area which cannot be opened simultaneously.

At the exit to the batch washer there will be an SPR-50 press, a mono-station water extraction press model with a 50kg load with the ability to save time and money in the drying process. Also, the water extracted from the laundry can be reused in the batch-washer.

For drying, the laundry will have an ST-100 model equipped with a heating system capable of obtaining an optimum ratio between the circulating air and the humidity with a higher output and reduced energy consumption. The dryer incorporates Girbau's Spirotilt system which allows unloading with the fan stopped and without the need of tilting option. These models are also fitted with fire-prevention sprinklers which activate automatically including without an electricity supply.

Following on, the wash phase will be equipped with a distribution system, capable of transporting the laundry cakes processed by the batch-washer and the press to the dryer or separator in respect to the type of fabric. The efficiency of this equipment is guaranteed thanks to its automation and control by PC.

The wash process will be finished by Cygne, an automatic system which selects the sheets one by one and deposits them on an outlet belt for the items to be placed separately into a trolley.



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The dirty laundry loading and washing area is totally separated from that of the drying, ironing and packing.

Ironing

The new laundry will be equipped with an ironing system with two lines, one for large pieces and the other for small flat pieces. The one for the large items will be integrated initially with a Galaxy feeder, capable of operating with one or two lanes with 3 working stations. This equipment also identifies the width of the piece fed and is able to centre the piece on the lanes. For the small pieces, the feeding stations by clamps move leaving a suction table visible for manual feeding.

This line has a PS-8033 three roller flatwork ironer, with an ironing large evaporation capacity and excellent steam exhaust, as well as an Autospeed system, which adjusts the ironing speed in respect to the nature and moisture content of the laundry. Finally, this first line will be completed by an Orion automatic folder, capable of making one or two lane folds in 1, 2, or 4 lanes, with a stacker for the third fold.

With regard to the line for the small flat items, this has a Mini-Neptune feeder and a suction table which facilitates the operator's work. This line is completed with a PS-8033 two roller flatwork ironer, an Orion folder and a PIL-O stacker which is connected to the collection belt system.

Form linen

For the finishing of form items, Girbau will install a highly automated system which will require the minimum of human intervention. The operator has only to place the item on a hanger and initiate the photoelectric sensor for it to travel automatically towards the garments tunnel finisher, where it will be processed and transported to the folder. There a head removes the hanger, recognises the type of garment, folds it accordingly and stacks it in respect to type. Finally, the empty hanger is transported to a garment store.

This circuit is integrated with a Fintec 800 garment tunnel finisher, an automatic transportation system, a Saturno Megamatic folder connected to the collection belts, together with manual and automatic hangers.

Towelling processing

The laundry will have an exclusive system for the processing of towelling items, comprising two STI auxiliary dryers and a Triton towel folder connected to the collection belt system. The folder has three stackers to select the folded laundry. Once completed, each pile of laundry is delivered to the collection system integrated with the packing management system. This system is comprised of a group of belts and junctions which collect the piles of finished laundry from each one of the laundry's integrated lines. In this way, handling the laundry is guaranteed to be kept to a minimum and the use of trolleys to transport to the packer is avoided.

Other systems

The installations will be completed by a cabin which will disinfect the trolleys and which can be programmed automatically for high pressure washing and the use of bactericides. Likewise, a water treatment system will be installed, comprising a water softener, a water supply tank and the complementary components for its operation.

Girbau will also take charge of the gas and electric installation, compressed air production, heat generation, steam exhaust and venting systems as well as the necessary software to control the process by computer.