

CURING AND PROCESSING OF COW HIDES (LEATHER) FOR THE MANUFACTURE OF LEATHER SEATS.

Summary: Counting, weighing and area measurement of each hide for complete automatic product inspection. Allowing customer to prepare the hides to correct thickness for seat manufacture.

Our customer had no automated way of checking if they were receiving hides that met their specification. Evaluating the quality of suppliers was not possible. They were also having problems in generating and maintaining records of production.

Quality assurance of cured hides was time consuming and extremely labour oriented.

As a solution provider it was KIW's task to design and build an automated means of inspecting each hide.

This was challenging because:

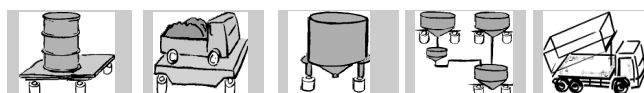
The client wanted us to provide a system after the hides had been cured.

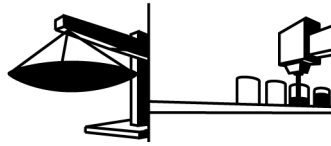
Freshly cured hides are saturated with curing chemicals. The environment in the curing shed was extremely humid. The large size of the hides.

Integration into downstream machinery: "splitting machine".

Our solution was to place the hides onto an inclined conveyor. The conveyor was on castors for mobility, was 3.2 meters wide and 6 meters long with a single belt. The conveyor had a KIW weighing system featuring the PR6211 low profile load cells and the PR1713 programmable weighing controller. A GER area measurement system and optical sensors were also incorporated.

Each hide placed onto the conveyor had its weight and area measured automatically. The operator also had the opportunity to visually inspect the hide.





Each hide was then fed into the splitting machine to ensure correct thickness was supplied for further processing.

The 1713 System controller used the optical sensors to determine when the hide was in position to be weighed. Each Hide was counted and weighed and the result was transmitted via RS-232 to reporting software being developed by the client. Four PR6211 load cells were used with PR6011 flex lock mounting kits to keep the system stable even while the belt drive motor was running.

Significant advantages have been realised especially in the time required to process each hide and in the collection and reporting of hide quality data.

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