



TANNING INDUSTRY - CHROME RECOVERY PLANTS



TANNING INDUSTRY

Chrome Recovery Plants

Tanning industry represents one of the industrial sectors with higher environmental impact, due to the high concentration in chemical reagents involved in the production process.

Among them, one of the main chemicals is the chrome salt, utilised in the industry as tanning agent.

It is well known that, with conventional tannery systems, only 70-80% of the chrome is fixed on the hide, while the remaining part is discharged in the effluent.

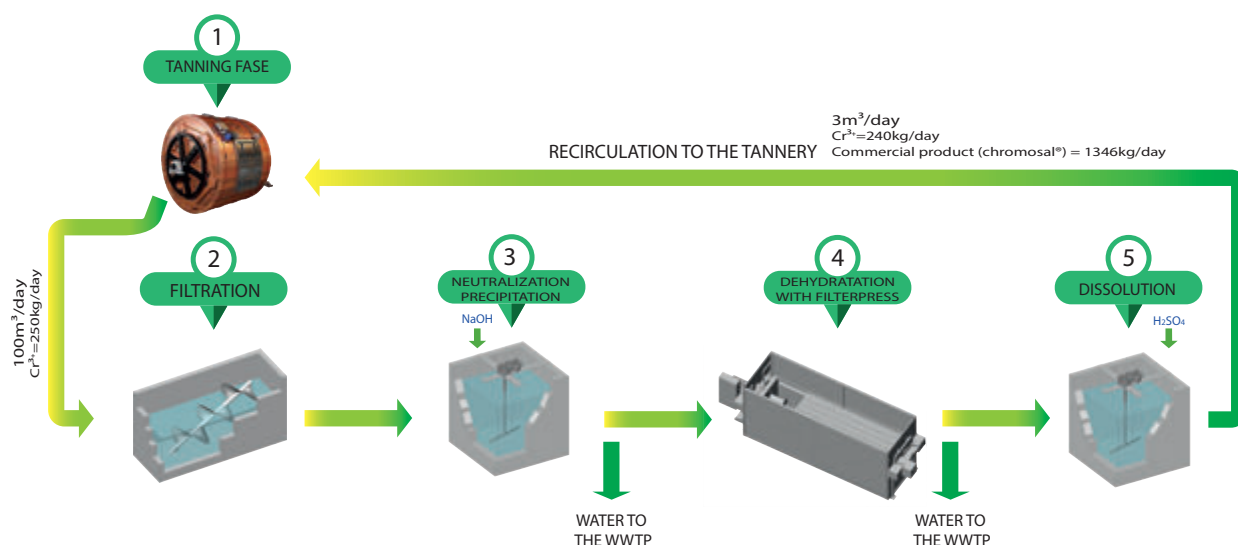
This element represents an important cost item for the tannery, besides it is one of the main factors of pollution both in the treated effluent and the produced sludge.



Through the chrome recovery system developed by **Deltacque**, it is possible to reuse the discharged baths in the tanning phases, separating and purifying with simple operations and with a low cost the chrome liquor, that can be reintegrated also in the process cycle, characterized by excellent quality standards.

In detail, as shown in the figure below, the chrome baths are firstly filtered and, after a proper neutralization, settled. The precipitate (chrome sludge) is then dehydrated to allow the elimination of water fractions and dissolved (through the addition of sulphuric acid) to let it again available for the tannery process.

CHROME RECOVERY DIAGRAM : MAIN PHASES



Thanks to **Deltacque's** system the chrome recovery is almost **complete**, as its elimination from the final effluent after treatment.

The reintegration of the chrome in the productive process allows as follows:

- **great environmental impact reduction**, thanks to the improvement of the discharged water quality;
- **better control of the productive process**, due to the continuous monitoring of the discharge;
- **high economic return**, thanks to the saving of the fresh reagent use and the **eventual fees for the discharge in public sewage**;
- **important savings on sludge disposal costs**, that are chrome free and can be easily eliminated or reused as fertiliser in agriculture.

CERTIFIED QUALITY
MANAGEMENT SYSTEM

CQY
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UNI EN ISO 9001:2015

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