

Cleaning of Waste Water

A Simple Way Of Cleaning Waste Water In The Potato And Vegetable Processing Industry

Before waste water leaves the factory it should be thoroughly pre-cleaned. The firm DORNOW developed a simple three-step system that can be applied in different phases of completion:

Step I, separators

(pictures: brochure P 201 E)

The waste water is collected in a central place and then fed regularly, over a pump with by-pass, into the slowly rotating DORNOW separators of the type 360 or 390.

As for the separators: effective length 3 m each, \varnothing 600 or 900 mm. Exchangeable sieves inside, optionally with openings of e. g. 0.4 to 0.9 mm.

Advantage of these separators: The material to be sieved remains for a long time in the separators, thus leaving them relatively "dry".

By means of the cleaning devices AR 360 or AR 390 - provided with their own air supply (fan) - the separators can clean themselves by air jet.

For big capacities and if you want to remove from the waste water as many particles as possible, but also very small particles, you can put up two or three separators, one behind the other, with their sieve dimensions decreasing accordingly.

The "dry" waste drops, for instance, in containers or movable barrel carts to be possibly utilized in the fodder production for animals.

If pre-cleaning by means of the described separators is insufficient, the separated water can flow into the DORNOW cleaning basins:

Step II, cleaning basins

(Drawing in brochure P 201 E)

The cleaning basins for liquids - available in different sizes - are equipped with a conveying device made of plastic chains and plastic drivers. The plastic drivers move very slowly both over the bottom of a basin and through the surface of its water.

The residence time of the water depends on the inflow quantity and on the size of the basin. It can vary between 20 minutes and several hours.

With a very low expenditure in electrical energy the cleaning basins can work day and night.

If you want to remove also as many floating particles as possible from the waste water, the water - already cleaned twice - passes through a filter system:

Step III, filter systems

The filter systems are simply constructed channel-shaped systems which can also be supplied in various sizes.

In a filter system one to two or more filters can be used. The filters are exchangeable. According to relevant agreements with the user, washable filters or other types can be applied.

Final observations:

1. Combination of steps I and III

If the above described steps I till III are applied, one will achieve an especially thorough cleaning of waste water.

2. Step I exclusively applied

In many cases it is possible to skip stage II or the use of a separator (step I) is sufficient.

3. Saving of water

In many cases you can take water out of the cleaning basin in order to utilize it once more in a suitable place in the production line.

A list of interesting articles and essays regarding the topics of the preparation and processing of tubers and vegetables and associated specialist areas can be found at our Internet site at www.dornow.de, Treatises.

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