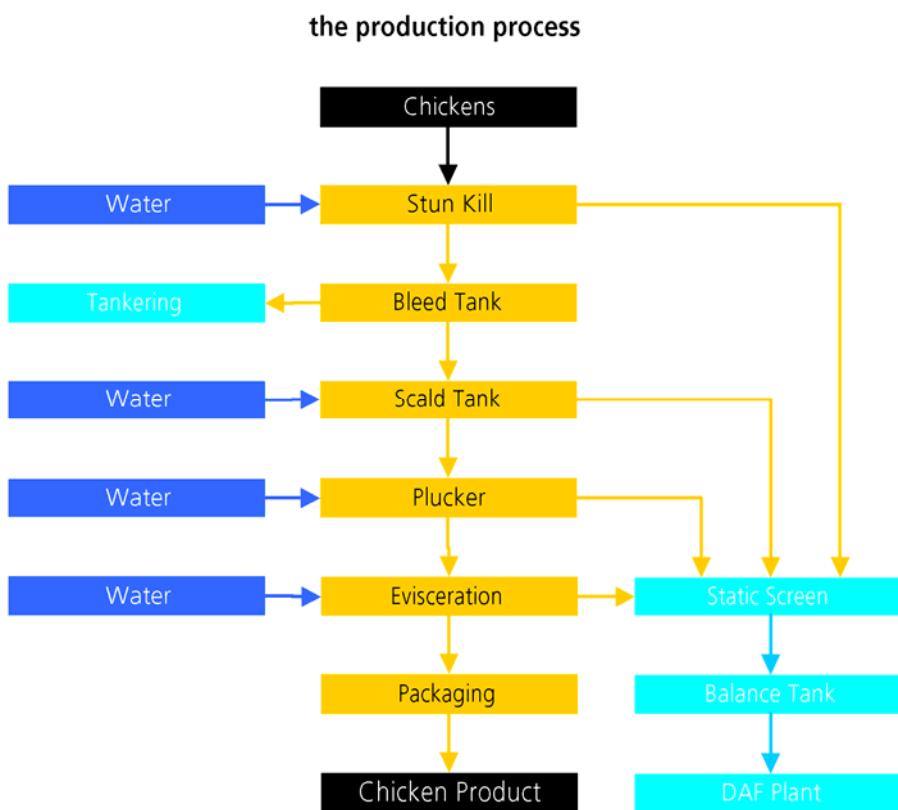


# Food industry

## Chicken processing plant



The customer humanely slaughters, plucks, washes, prepares and packages chickens for on-ward sale, mainly by supermarket chains, as fresh and frozen produce.

The factory uses around 537,000m<sup>3</sup> of water per year and discharges 532,000m<sup>3</sup> of effluent.

Subsequent to steady business growth a point had been reached, at one processing site, whereby problems were being experienced in complying with the trade effluent consent, which if unchecked, were likely to result in prosecution action being taken against the company.

Also, due to an increasing effluent load discharged to sewer, the trade effluent charges had risen sharply over prevailing years, impacting upon operating profit.

Further to conducting scoping studies at a number of the customer's UK facilities to gain a broad understanding of the production processes and nature of the wastewater discharged, Optimiser developed a cost effective solution to the problem.





#### study findings:

The customer had three Dissolved Air Floatation (DAF) effluent treatment plants, one at each of three different sites: -

- Site A DAF plant found to be undersized (problems being experienced with trade effluent consent compliance);
- Site B DAF plant disassembled, parts in storage;
- Site C DAF plant redundant due to site closure.

Further to reviewing the design operating and performance parameters of the various DAF plants and completing calculations regarding the treatment of the specific trade effluent produced by the customer's business, a simple solution to achieving trade effluent consent compliance and significantly reducing trade effluent disposal costs was proposed.

#### recommendations:

Move the DAF plants from sites B and C and install them at site A – together, and with some minor modification, these two plants had sufficient capacity to effectively treat the trade effluent at the processing facility with treatment.

Subsequent to the recommendations being accepted, Optimiser provided technical support to assist the customer build and commission the plant from site B which had never previously been assembled and disassemble, rebuild and commission the DAF plant from site C.

#### benefits:

**The solution enabled the customer to comply with the limits of their trade effluent discharge consent at Site A, thus allaying the risk of prosecution action being taken against them.**

**Trade effluent discharge costs were reduced by £262,000 per annum.**

#### further recommendation:

It was further suggested by Optimiser that if the DAF plant that had been originally installed at site A was installed at site B, further savings in total trade effluent discharge costs could be made.