Continuous mixing of confectionary ingredients.

Subject: Continuous feeding-mixing system

Clients: Systems commissioned for high volume, quality food manufacturers

Description: Feeding and mixing of confectionary ingredients, chocolate and beverage powders for continuous production processes

Product characteristics: Diverse range of ingredients with differing flow properties such as sugar, pectin, citric acid, cocoa, vanilla, tea and sodium bicarbonate. Particle size range from breakfast cereal flakes to fine powders.

Requirement: Volume based production, accurate metering, high degree of homogeneity, low headroom, easy to clean, and low capital investment.

Gericke technology: Each ingredient is transported to gravimetric “loss-in-weight” feeders controlled by a single Gericke UC 500 microprocessor. This calculates the recipe and controls the throughput of all feeders. These units meter the product directly into the GCM continuous mixer from where the mixed product is delivered to the onward process.

Special requirements: Continuous mixing is often used for small final packages and sachets due to high degree of ingredient dispersion. Systems are fully automated with easy clean features.

Gericke have developed this key process equipment in the form of gravimetric feeders and continuous mixers from their own research and development programmes. The system is particularly successful in processing fragile components without damage and the inclusion of liquids to a high proportion. Continuous mixing has many advantages:

- High degree of homogeneity
- No product separation
- Automated handling techniques (no containers or bags)
- Small space requirements
- Low power consumption
- Minimal source for impurities
The equipment is mobile and easily cleaned within a controlled environment such as a wash station, which can be remote from the production area. Liquid injection can be used for agglomeration processes.

Control of the plant is from a single PLC based panel incorporating operator interfaces and graphic visualisation. The feeder controller forms an integrated part of the overall system PLC.

Gericke provide a complete turnkey service for system implementation including all controls, installation and commissioning.

Gericke are able to offer test facilities for mixing, agglomeration, coating and thermal heat transfer processes. In all cases comprehensive test reports are made available.

1 Receiving hopper
2 Centrifugal sifter
3 Loss-in-weight feeders
4 Continuous mixer
5 Dense phase pneumatic conveying system
6 System assembly

DIW – continuous feeding system.