

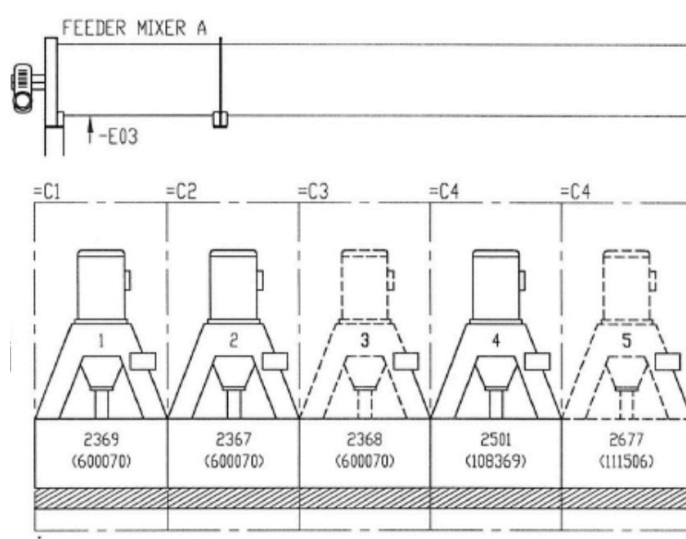
## CENTRIFUGES FOR THE SUGAR INDUSTRY

### EXEL's QUALITY COMES TO THE OTHER SIDE OF THE WORLD

EXEL has been working together with the Swedish centrifuge manufacturer SILVER-WEIBUL for more than 20 years and we are the exclusive representative in Spain. The growth of this company meant that it needed a quality Technical Service to guarantee the start-up and modernization of equipment in countries such as the Dominican Republic, Cuba, Algeria, Argentina ... In the latter country, one of its main clients was the group ARCOR, which needed to optimize the performance of its factory.

Ingenio La Providencia is a factory that supplies sugar to ARCOR, an Argentine multinational group specialized in consumer foods. Sugar Centrifuges are the last link and a very important part of the process, since they leave the product ready to consume.

Ingenio La Providencia plant has five first product Centrifuges that can each process more than 20,000 liters of cooked massecute per hour, producing more than 10,000 kg of high quality cane sugar.



Up to now, the machines had SIEMENS and ABB drives of several generations, as well as an obsolete control system. The solution was to modernize this control, and in record time to avoid economic losses.

In the stop time between campaigns, in less than a week we replaced the control system with modern SIEMENS PLCs and the operator panels were replaced by touch HMI's, incorporating new functions for the process. We also standardized the operation of all drives, despite their generational variety.

The work was completed with the "on-site" Training of the technical and maintenance staff of the plant.



The advantages of system modernization have been:

#### **HW Update**

With this, the availability and price of spare parts improves substantially.

#### **Safety**

The new control systems have the latest safety functions available for centrifugal machines..

#### **Control and communication**

The new system allows connection to the factory central control system.

#### **Fault Diagnosis**

Operator panels incorporate new "documentation-free" fault location systems.

#### **Energy saving**

One of the most important functions of the control system is to get the machines to work in a synchronized way, so that while one machine is braking (generating energy), the other is accelerating, and thus an optimal energy balance is achieved.

