

## STORING AND CLEANING CORIANDER AT SUBA SEEDS

### SUBA Seeds – A different approach to storing and cleaning coriander

The long story that links Cimbria Heid Italia to SUBA Seeds has its origins in the development of a number of short lines, whereas today it encompasses an enormous number of products offered by SUBA. SUBA uses single big-bags when working with many different products, whilst the different lines enable different products to be worked on simultaneously.

This way of working allows huge flexibility in production, but requires low flow rates. The increasing demand for coriander seed in recent years was beginning to put a strain on production, and SUBA thus began thinking about a new approach to meet market demand.

The request that came from SUBA involved two main features:

- A mass storage plant to improve reception capabilities
- A seed cleaning line which could support the kind of volumes that would improve SUBA's sales capabilities

The initial proposal that SUBA presented to Cimbria was for a “typical” storage solution, with the project being shared with other potential suppliers. Initially, SUBA only approached Cimbria with regard to the seed cleaning line, whilst considering other potential suppliers for storage and pre-cleaning.

Having examined the project presented, Cimbria raised the following objections:

- Mass storage based on steel silos risks damaging the seed in loading and unloading operations
- Steel silos can generate temperature issues that can cause condensation in the interior
- Standard conveying equipment risks damaging the handled seed and causing cross-contamination
- Steel silos can be very useful during the season, but during the rest of the year they remain empty and cannot be used for other applications
- On this basis, Cimbria presented an alternative project for a fully automated flat storage warehouse along with mechanised equipment consisting of RS7 chain conveyors, low-speed, high-capacity bucket elevators (ED12LS) and cleaning performed by means of a Delta 146 pre-cleaner.

The new general layout has a more compact appearance and features the following important characteristics:

- Receiving and processing lines close to each other, thus reducing the number of operators needed to run different tasks
- Storage facility able to receive and manage both big-bags and raw product delivered by truck
- Flexible building for different uses: not only for product storage during the season, but can also be used as a warehouse during the rest of the year
- Valuable building to increase the market value of the company

- The proposal received a favourable response from the enterprise in terms of both technology and layout. The possibility of using the new building all year round provides tremendous logistical benefits, whilst gentle handling performed on relatively high capacities improves the yield on the final product.

For these reasons, SUBA decided to award Cimbria the whole project as an electro-mechanical turnkey supply. Civil works commenced at the beginning of March on a greenfield site, with the entire plant beginning operations at the end of June, ready for the first trucks with coriander seed.

After one-year of operation and accumulation of experience with the new plant, SUBA presented requests for further developments. These requests were based on the high performance of the conveying equipment in terms of flow-rate and gentle handling, along with the high level of impurities in the raw product. These two factors have led to a request for a much larger pre-cleaner to provide better performance in terms of total receiving capacity, as a result of which a high-capacity Delta 168 has been chosen to carry out pre-cleaning. Moreover, the excellent flexibility of the cleaning line has resulted in a proposal to create another receiving pit mainly dedicated to legumes (which represents a new business area for SUBA, a company that has traditionally focused on vegetable seeds). The new line envisages using the “old” Delta 146 to pre-clean the product for loading into big-bags or for conveying the product directly to the seed cleaning buffer bins.

SUBA is still developing the new facility to further improve its business. The different approach to the initial project provided a number of major advantages, the most relevant of which have been:

- Being able to cover and lead the way in areas of the market which could not be covered without a significant improvement in total capacity
- A significant improvement of the value of the company through the construction of a new warehouse
- The opportunity to enter new product markets through the flexibility of Cimbria seed cleaning lines.

