

Processing of Flower Bouquets



Introduction.

This report explains the process of preparing **bouquets** of flowers, mainly for the export market.

In this factory, in the south of Spain, there are a large number of conveyor belts with different widths (from 60 to 800 mm) and unrolled lengths (from 4 to 25 m). Most of them work with an 8 x 8 mm internal guide (NE.008). These are found both inside the plant and outdoors.



1. General view of plant.

Making the bouquets



2. Preparing the **bouquets**.

At the beginning of the process the **bouquets** are prepared manually. These are then placed on a conveyor fitted with a set of FEBOR 20CK belts, with an unrolled length of approximately 27 m (photos 2 and 3). Below is a detailed description of the belts.

- Two belts, 220 mm wide, onto which are welded a number of equidistant “borders”, made of the same type of belt. Their function is to separate each **bouquet**.
- One belt, 60 mm wide, placed between the previous two. This is simply a support for the **bouquets**.
- One belt, 580 mm wide, on which the stems of the **bouquets** are supported.



3. Making up the **bouquets** on the FEBOR 20CK.

4. The cutter.



5. Febor 20CK collecting left-overs.

6. FEBOR 20CK inclined belt with profiles.



7/8. bouquet tying machine.

9. Wrapping in cellophane.



These small **bouquets**, once cut, are taken to a machine that ties them up tightly (photos 7 and 8). Once tied, they move onto a number of wider BRED A 20CF belts (780 mm x 25 m), on which they are wrapped in cellophane (photo 9).

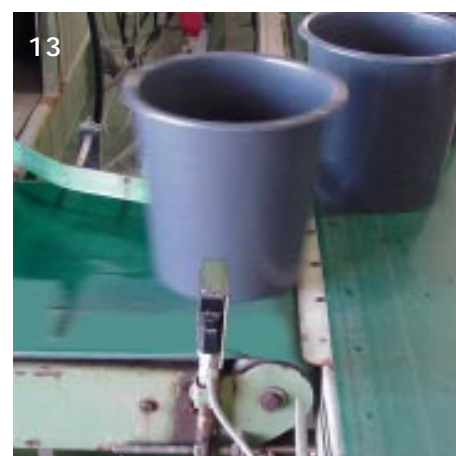
Once the above process is finished, the **bouquets** are put manually into recipients (similar to plant pots). These "pots" contain a chemical solution that helps preserve the appearance of the flowers until they are sold. This product is very harmful and caused cracks in the covers of the originally installed belts. This problem has been solved by installing our BREDA 12UF (PU cover).

The conveyors on which these pots are placed are at an angle of 90° at the point at which the transfer takes place (photo 10). When there is a build up of pots, a photoelectric cell (photo 11) stops the process.

In order to facilitate the transfer, a number of modifications have been made to the original conveyor, which has led to better results.

The original machinery was supplied with a motorised wheel between the first conveyor and the receiver, which did not quite align the pots correctly. This has been replaced by a metal deflector (photos 12 and 13), which has improved alignment and eliminated problems of motor maintenance.

A polyethylene profile has also been added, which facilitates the transfer of pots, preventing them from tipping over (photo 13).



10. The arrival of the pots and the 90° transfer.

11. Details of the photoelectric cell.

12. Metal deflector.

13. Detail of the polyethylene profile.

Finally, the recipients and their **bouquets** are placed in carts (photos 14 and 15), and stored in chambers with controlled atmospheric conditions, from where they are taken to containers, for sending on to their destination.



Belt for the process of producing bouquets of flowers.

FEBOR 20CK

- Green PVC belt
- Flexible weft
- Adaptable to all types of conveyors (flat bed, sheet and idler troughs)
- Highly resistant to abrasion



BREDA 12UF

- Green PU belt
- Rigid weft
- High dimensional stability
- Excellent resistance to chemical products
- Low friction coefficient on the cover

