

# #ProvidingSolution

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Agri-food and Food & Beverage companies are among those that are best able to recover their by-products, opening up new market opportunities. The re-use of these products, which before could be considered waste, can be optimally enhanced thanks to our technologies:

- Membrane systems
- Adsorption with renewable adsorbent resins
- Chromatographic separation
- Low-temperature vacuum evaporation





## **GRAPE JUICE**

Polyphenols (tannins and anthocyanins), natural colourings and substances with high added value can be extracted from the peels, the juice or the must as well as from the seeds.

In this area, in addition to demineralising the must and producing RCM (Rectified Concentrated Must), our systems also allow the following activities to be carried out: tartaric stabilisation, removal of heavy metals from wine, must decolourising, production of enocyanin.

#### **CITRUS JUICE** – By-products of peels

Orange juice contains many types of polyphenols and organic molecules.

Some of the ones present in the pulp and peel of citrus fruits can be extracted as active ingredients; they also provide a bitter taste and are removed through a de-bittering process.

### FRUIT JUICES AND SUGARS

Fruit juices (for example, Apple, Date, Pomegranate, Pineapple) can be demineralised, de-colourised and rectified in order to improve their organoleptic properties as well as their pH and stability.

It is possible to work on the flavouring and polyphenol fraction of the juices (separation, extraction and production of polyphenols in powder form), or on their sugar fraction.





## NATURAL EXTRACTS AND NEW PROCESSES

Our engineering and process skills are made available so that your by-products can acquire value or substances with high added value can be extracted in a selective manner.

This is why we can provide effective support for coffee, Arabic gum, tea, cocoa, maize, milk and its by-products, palm oil, infusions and vegetal extracts:

- from the feasibility study and laboratory test phases
- to tests in the field and production of small batches with pilot systems
- up to the development of a "turn-key" production system.



### **KEYWORDS:**

Recover, concentrate and separate:

- Polyphenols
- Antioxidants/anti-age
- Essential substances
- Natural flavourings or colourings
- Process fluids for re-use







Per maggiori informazioni di processo contattateci rivolgendosi al referente di zona:

REFERENTE DI ZONA

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