



### Network

Based on our international network ensymm is able to provide you a custom tailored turnkey production line , according to the budget , capacity and other restrictions.

### Project execution

Ensymm will organize and supervise the entire project execution..

## Date Syrup Production Line

### Abstract

Date syrup production belongs to the ensymm program: make profit from waste.

Date syrup might be considered one of the most innovative and attractive by-products in date processing.

Especially the Middle East and North African countries, according to their food habits, make use of the product as a substitute for honey or other similar sweeteners as well as in confectionary and drinks.

Date processing requires a specific technology in order to fulfill certain quality specifications.

Our approach of transforming either fresh or dried dates into syrup is presented in this brochure.



### **INTRODUCTION**

Dates have been cultivated since ancient times. Date palms thrive under the rigorous climate of sub-tropical desert. Date processing enjoys a high economic importance in the world. Dates have nutritive values and are consumed in large quantity in all parts of the World. The Middle East region produces good quality dates and there is a very good scope to set up facility for processing and packing of dates at a suitable location. Date processing technology has improved during last few years, which has made it possible to process them hygienically. This technology has made it possible to produce a marketable product which can easily be handled, transported, stored and packed in attractive packing before sale.



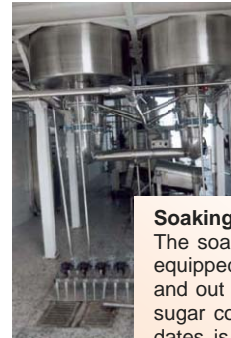
### **MARKET POTENTIAL**

A date processing and packing unit can be set up in rural areas, where intensive date palm cultivation exists and labor is cheap and available in the season. With more and more awareness about health, number of people has started consuming dates regularly. Apart from direct consumption, they are also used to make some other preparations and some sweet items are made from them. The market is confined mainly to urban and semi-urban areas but it is growing very rapidly. There is not much competition in this line and proper selling network, adequate publicity and consistency in quality shall be the important aspects.



**Sorting**

The incoming fresh or dried dates are inspected and sorted on our belt sorting line.



**Soaking**

The soaking tanks are equipped with a stirrer and out feed screw. The sugar contained in the dates is transferred to the hot water.



**Creaming**

Depending on the required capacity, the de-soaked dates are sent either to our destoning machine SUPERCREAMER or JUMBO-CREAMER, guaranteeing a clean separation of stones from pulp and syrup.

**Refining**

For example with adouble refiner





**Pasteurization**  
Before the product is filtered, we pasteurise it in our plate heat exchanger **THERMOFLASH**. It is manufactured in several sizes and executions and can be mounted completely on skid.

**Filtration**  
The date syrup is clarified by **vacuum rotating filters** with Kieselguhr pre-coat



As alternative to the vacuum fi  
**ultra filtration**  
can be used.



**Concentration**  
3-effect plate evaporator **FLASHTERM**, suitable to concentrate date syrup from 18 to 72° Brix.



**Filling**  
Semi-automatic filling into glass jars (Customized solution for reduction of investment)





## Ensymm service concerning date processing plants:

Ensymm can help you to plan and realize your date syrup production line project. Referring to this look at the ensymm profile, ensymm benefits and ensymm project roadmap as follows.

### **Profile:**

Ensymm is a consulting company based in Duesseldorf/Germany. Our company offers Technology Transfer, Project Management and Consulting for companies, governmental organization and universities. We have a strong network of more than 30 suppliers in the EU, Iran and India and 15 cooperation offices worldwide. Beside our expertise for managing your project puzzle, we are specialist for Turnkey Plants (Transfer of Technology and Equipment) and Outsourcing. The transfer of technology contains the areas:

- Biotech processing
- Pharmaceutical processing
- Chemical processing
- Food processing

So we have the pleasure to provide you with new and fresh ideas for preparing your company for future challenges and developing its marketing and sales strategy for the global competition.





### **Benefits:**

- Client design offer
- Local suppo
- State of art Technology
- Feasible production capacity
- Offers designed for the budget of investors
- Competence team for:
  1. Business and scientific issues
  2. Supervising for engineering, installation and production
  3. Inspection and guarantee for used plants
  4. Coordination of the Project from A-Z
  5. Quality control
  6. Advisory related to the project
  7. After sales services
- Project coordination from A-Z
- Support for raw material and technical services
- Support for formulation and compounding
- Support for certification and validation for approvals

### **Roadmap:**

1. Our email with a short introduction along with an abstract and general budget plan
2. Signing a MOU
3. Delivery of a detail proposal with list of equipment, machinery, raw material, general feasibility calculation and references.
4. Meeting between client and our supply-ing/technology team.
5. Further decision for signing a project contract

**Could we intrigue you?**