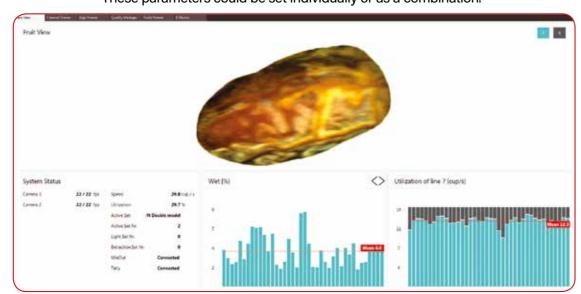
# **Electronic System**

Our electronic systems are modular and equipped with industrial PCs that control the lines and their operation. Thanks to our advanced systems, we can provide our customers with remote control capabilities for their machines. Our machines are equipped with a weight system and a sophisticated vision box, which enables them to accurately detect the diameter of the product (and even identify if there are two small items in the same trolley), as well as the length, width, colour, and external defects such as yellowing, loose skin, and moisture. These parameters could be set individually or as a combination.



### **LOOSE SKIN:**

Detection on a single or multiple views and classification up to 5 quality classes.













## **HUMIDITY**:

Detection on a single or multiple views and classification up to 3 status classes based on the appearance of the date.













**DRY** 

**READY** 



## futura-grading.com

- t. +39 (0) 547 632749
- e. info@futura-technology.com

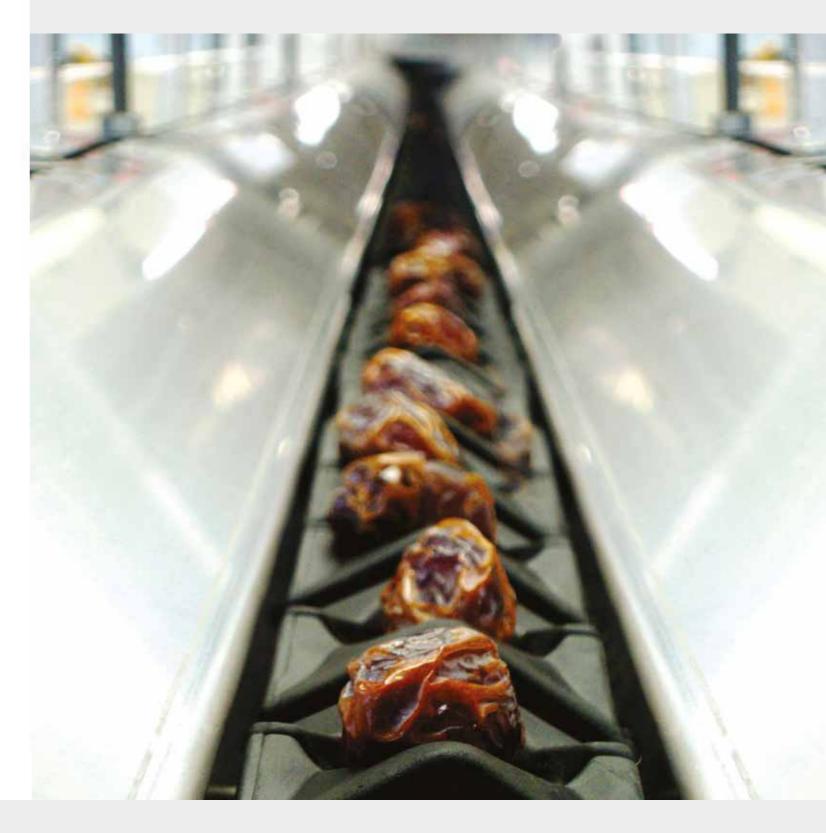


#### FUTURA s.r.l.

**Registered Office** Via Paleocapa, 6 20121 Milano - Italy

**Operational Headquarter** Via R. Mattioli, 136-156 47522 Cesena (FC) - Italy

# **DATES GRADING LINE**





# DATES GRADING LINES

Our machines are specifically designed to handle the irregular shape and sugar loss of dates and are made entirely of AISI material that is certified for food contact. We work closely with our customers to provide customized solutions based on their unique needs, from warehouse space to the variety of dates they grade.

For capacities up to 1,000 Kg/hr., our LOGIKA Lateral Discharge line is the ideal solution, while the LOGIKA Central Discharge line can handle capacities up to 4,000 kg/hr.

#### TWO PRE-ALIGNING SYSTEMS

We utilize two pre-aligning systems to achieve the highest filling rate of the line due to the irregular shape of the product.

# DATES GRADING LINE, CAPACITY UP TO 1 TONS/H

#### **ELECTRONIC GRADER**

The electronic grader is a laterally discharging machine that can accommodate one or two grading lanes. Its modular design provides flexibility in terms of the number of lanes and exits, according to the working capacity. The grader is equipped with a 76 mm trolley system that is specially designed for dates and a trolley washing system. Additionally, it uses a camera to identify if two dates are in the same trolley, and in such cases, they are automatically discharged onto the recovery belt and sent to the recovery area.

#### **WASHING AND DRYING SYSTEM**

The Dates automatically arrive in the washing and drying machine, if washing is requested.



### **CENTRAL CONTROL SYSTEM**

The main control computer enables us to have precise control over various parameters throughout the entire production line, including:



- Diameter
- Colour
- Length
- Width
- External defects, such as yellow skin, loose skin, and humidity.



#### **EMPTY BOXES FEEDING**

Through this, empty boxes are fed to all packing station

#### **OUTLETS AND PACKING**

Based on the parameters set on the computer, the dates are sorted indifferent classes and then discharged from the trolleys into the corresponding lateral packing tanks. These tanks are equipped with a small gate that directly fills the boxes.

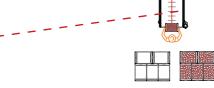
**PRE-SORTING SYSTEM** To start the Grading process, the dates are sorted manually to remove any waste and separate any dates that may be stuck together.

#### **MANUAL FEEDING**

The dates are received from the field and then moved to the processing line, where an initial pre-sorting takes place to remove any waste.



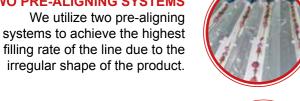




#### Our singulation system is one of the key elements of our machines, as it automatically places dates on trolleys, allowing for a filling rate of up to 70-80%.

SINGULATION SYSTEM

## DATES GRADING LINE, CAPACITY UP TO 4 TONS/H





#### **WASHING AND DRYING SYSTEM**

irregular shape of the product.

TWO PRE-ALIGNING SYSTEMS

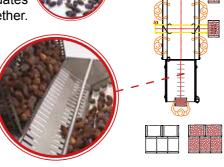
The Dates automatically arrive in the washing and drying machine if washing is requested.

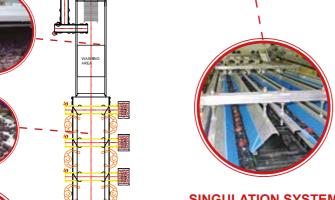
## **PRE-SORTING SYSTEM**

To start the Grading process, the dates are sorted manually to remove any waste and separate any dates that may be stuck together.

### **MANUAL FEEDING** The dates are received from

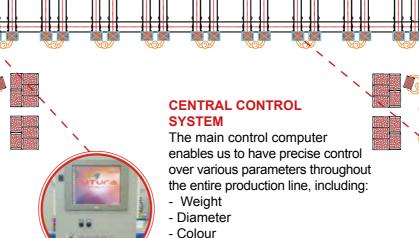
the field and then moved to the processing line, where an initial pre-sorting takes place to remove any waste.





#### SINGULATION SYSTEM Our singulation system is one

of the key elements of our machines, as it automatically places dates on trolleys, allowing for a filling rate of up to 70-80%.



- Lenath - Width
- External defects, such as yellow skin, loose skin, and humidity.

#### **ELECTRONIC GRADER** To increase the grading capacity, we

utilize a central discharge electronic grader that can accommodate 2, 4, 6, or 8 grading lanes, depending on the working capacity required. The grader's modular design allows for flexible configuration of the lanes and exits. The grader also features a 76 mm trolley system that is specifically designed for dates and is equipped with a trolley washing system. Additionally, the grader utilizes a camera to identify if two dates are in the same trolley, and in such cases, they are automatically discharged onto the recovery belt and sent to the recovery area.



#### **OUTLETS AND PACKING**

The dates discharged semiautomatically into the boxes using exit belts based on the parameters set on the computer. The dates can be divided automatically based on the number of dates or weight, as specified by the computer.