

VINEGAR FERMENTERS

# FERMENTERS FOR INDUSTRIAL VINEGAR PRODUCTION

Cetotec delivers turn-key industrial scale fermentation plants with production capacities of up to 110m³. The fermenter is the core component of every vinegar production. It is delivered in high quality stainless steel and equipped with a custom-tailored cooling coil

## **Description:**

In modern vinegar production facilities, nowadays the submerse fermentation is the pre-dominant process. High performance aeration systems guarantee a homogenous and uninterrupted supply of oxygen to the fermenter, therefore optimally supporting the growth of the microroganisms. In Cetotec fermenters you can achieve up to 15% acidity when applying the semi-batch process as well as more than 20% acidity when applying the fed-batch process.

#### **Function:**

A complete fermentation plant in vinegar production technology generally consists of the following main components:

- High quality stainless steel tank with cooling coil
- Aeration system
- Foam system
- SIEMENS PLC process control
- Acetoline system for the on-line alcohol and acidity measurement / Alcocontrol – system for the on-line alcohol measurement
- Stainless steel pumps
- Sensors (filling level, temperature, alcohol volume)

### Advantages:

- Technological leading engineering for the optimal construction of your vinegar fermenter
- High performance aerator design for vinegar production
- Easy to handle foam system with very low energy consumption
- Innovative alcohol and acidity measurement systems
- Reliable Siemens PLC control with well-proven software



#### Available sizes:

| Туре  | Fermentation volume [I] | Vinegar [I<br>10% / year] | Fermentation volume [US gal] | Vinegar [US<br>gal 10% /<br>year] |
|-------|-------------------------|---------------------------|------------------------------|-----------------------------------|
| F30   | 3.000                   | 470.000                   | 790                          | 124.000                           |
| F60   | 6.000                   | 940.000                   | 1.590                        | 248.000                           |
| F90   | 9.000                   | 1.420.000                 | 2.400                        | 375.000                           |
| F120  | 12.000                  | 1.900.000                 | 3.200                        | 502.000                           |
| F200  | 20.000                  | 3.100.000                 | 5.300                        | 819.000                           |
| F250  | 25.000                  | 4.200.000                 | 6.600                        | 1.110.000                         |
| F300  | 30.000                  | 5.000.000                 | 7.900                        | 1.321.000                         |
| F400  | 40.000                  | 6.600.000                 | 10.600                       | 1.740.000                         |
| F500  | 50.000                  | 8.200.000                 | 13.200                       | 2.170.000                         |
| F600  | 60.000                  | 9.900.000                 | 15.900                       | 2.620.000                         |
| F750  | 75.000                  | 12.300.000                | 19.800                       | 3.250.000                         |
| F850  | 85.000                  | 15.400.000                | 22.500                       | 4.070.000                         |
| F1000 | 100.000                 | 16.400.000                | 26.400                       | 4.327.000                         |
| F1100 | 110.000                 | 21.000.000                | 29.100                       | 5.550.000                         |