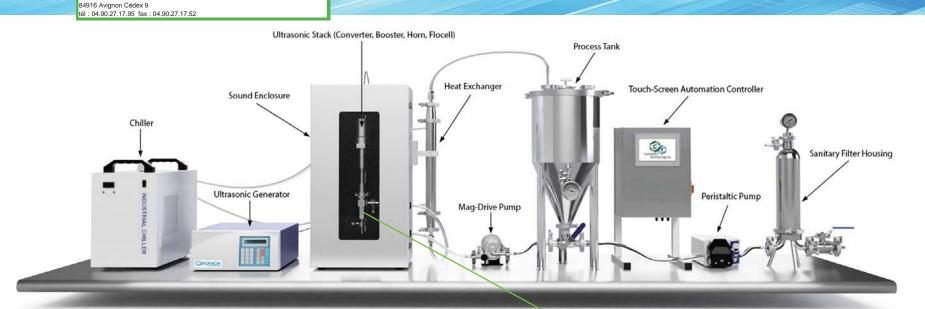


PRODUCTION-SCALE Q2000 PACKAGE



The Q2000 Production Scale Package includes all the parts and accessories needed for a full continuous processing system. The list of components can be customized depending on the needs of each individual lab or application.

www.deltalabo.fr

CELL LYSIS

Agence Sud:

Bât Le Venango. 392 Rue Jean Dausset AGROPARC - BP11575

HOMOGENIZATION

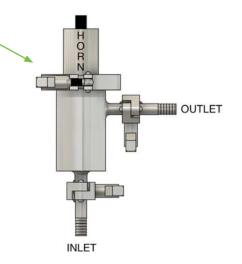
EMULSIFICATION

SOLUBILIZATION

DEAGGLOMERATION

DISPERSION

Processing volumes are application specific. There are many variables (viscosity, concentration, etc.) that can affect the min/max processing volumes and processing times.



FLOCELL CROSS-SECTION



www.deltalabo.fr

info@deltalabo.fr

DESCRIPTION OF COMPONENTS

Chiller

The chiller circulates coolant through the heat exchanger to maintain the temperature of the process liquid.

Ultrasonic Generator

Agence Sud:

AGROPARC - BP11575

84916 Avignon Cédex 9

Bât Le Venango. 392 Rue Jean Dausset

él: 04.90.27.17.95 fax: 04.90.27.17.52

The Sonicator generates the electrical signal needed to create the ultrasonic waves. It requires a 220V wall outlet and connects to the ultrasonic stack.

Sound **Enclosure** The sound enclosure houses the ultrasonic stack and flocell and protects users from the extremely high decibel level.

Ultrasonic Stack

The stack (converter, booster, horn and flocell) is where the conversion from electrical signal to mechanical motion occurs as well as the processing of the liquid. The components of the stack work together to amplify the mechanical motion and transmit pressure waves into the liquid.

Heat Exchanger

Ultrasonics generates a significant amount of heat. The heat exchanger works with the chiller to extract the heat and maintain your desired temperature range.

Magnetic Drive Pump

Recirculates the process liquid through the process tank, Flocell and heat exchanger continuously.

Process Tank

This 25L tank is the reservoir for the process liquid. It connects to the mag drive pump and via a 3-way valve, to the filtration process.

Automation Controller

Utilizes feedback from flow, temperature and pressure sensors, along with a serial communications interface with the ultrasonic power supply to monitor for process irregularities and failures. In the case of a process deviation, the controller will sound an alarm and shut-off the ultrasonics until an operator corrects the error.

Peristaltic Pump

Pumps the processed liquid through the filtration system. This type of pump is required to maintain sterility.

Sanitary Filter Housing

Sterilizing grade filtration is needed at the final step to remove titanium contamination as well as any other contaminants resulting in a food grade product.

Note: Compressed air is required to cool the ultrasonic stack (10psi/3-4 CFM of dry, oil free, filtered air). If you do not have a continuous duty compressor system, we can discuss alternative options.