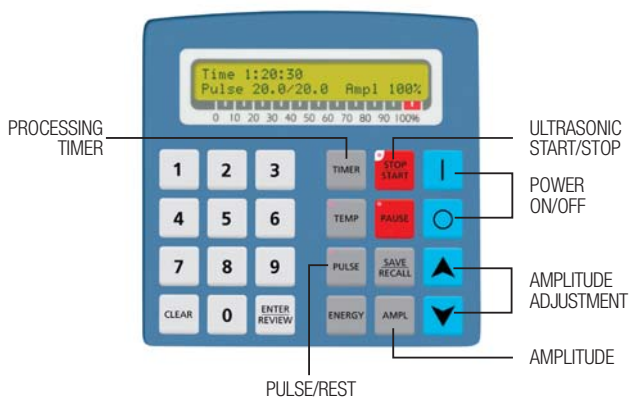


# Q2000 Sonicator

**The Q2000 offers the ability to process industrial scale sample volumes in individual batches or flow through applications. This model includes a 100um amplitude, 1.5 inch diameter, 10 inch long probe and booster. The booster increases the amplitude of the probe which enables larger volumes to be processed. The Q2000 is powerful, durable and customizable.**

The Q2000 Sonicator allows the user to program processing times and a full range of intensity settings. Processing time can be set from 1 second to 10 hours. A pulsing feature is also included. Pulsing can reduce the amount of heat generated by sonication when processing temperature sensitive samples. A temperature monitoring probe option is also available.



## FEATURES:

### Programmable operation

Set time and amplitude for hands free operation

### Pulse mode

Prevent heat buildup in temperature sensitive samples

### Digital amplitude / intensity control

Output intensity can be set from 20-100%

### Elapsed time indicator

Displays duration of sonication

### Display of wattage and joules

Real-time energy monitoring

### Overload protection

Prevents damage to circuitry if a fault occurs

### Temperature protection

Prevents overheating of samples

## PART NO. Q2000 INCLUDES:

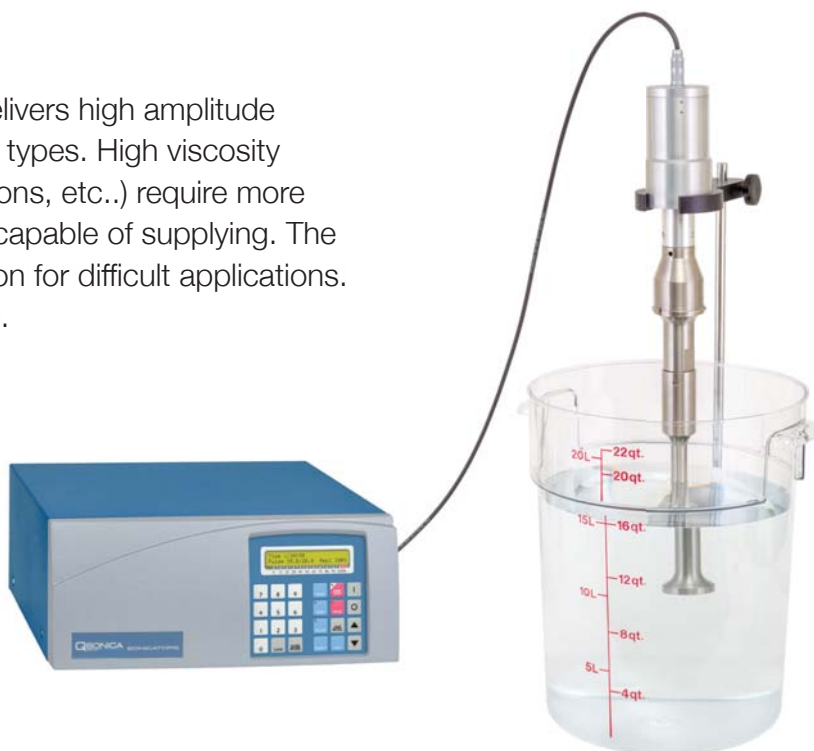
- Generator
- Converter
- Booster
- Converter cable
- Power cable
- Wrench set
- #4677 probe

## TECHNICAL SPECIFICATIONS:

<b>Power Rating:</b>	2,000 watts
<b>Frequency:</b>	20 kHz
<b>Programmable Timer:</b>	10 hours
<b>Adjustable Pulse On/Off:</b>	1 second to 1 minute
<b>Dimensions (H x W x D):</b>	7 x 15 x 18.25 in. (178 x 380 x 463 mm)
<b>Voltage:</b>	220V, 50/60 Hz

### High Volume Batch Processing

The powerful 2,000 watt generator delivers high amplitude sonication to a wide variety of sample types. High viscosity samples (such as oils, slurries, emulsions, etc..) require more power than traditional sonicators are capable of supplying. The Q2000 is a durable and reliable solution for difficult applications. Custom size probes are also available.



### Replacement Probe



#4677

The #4677 probe is 10" long and can reach down into large vessels. It is recommended for a minimum of 5L volumes.

Part #	Tip Diameter	Max Amplitude
4677	1.5" (38mm)	100um

### Optional Accessories



#4474



#461



#4060

Part #	Description
4474	Sound Enclosure (W x H x D) 36 x 16 x 16 in. (914 x 406 x 406 mm)
461	Support Stand and Converter Clamp
4060	Temperature Probe

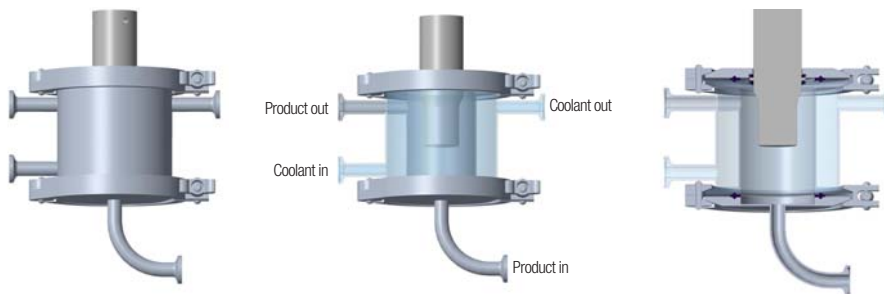
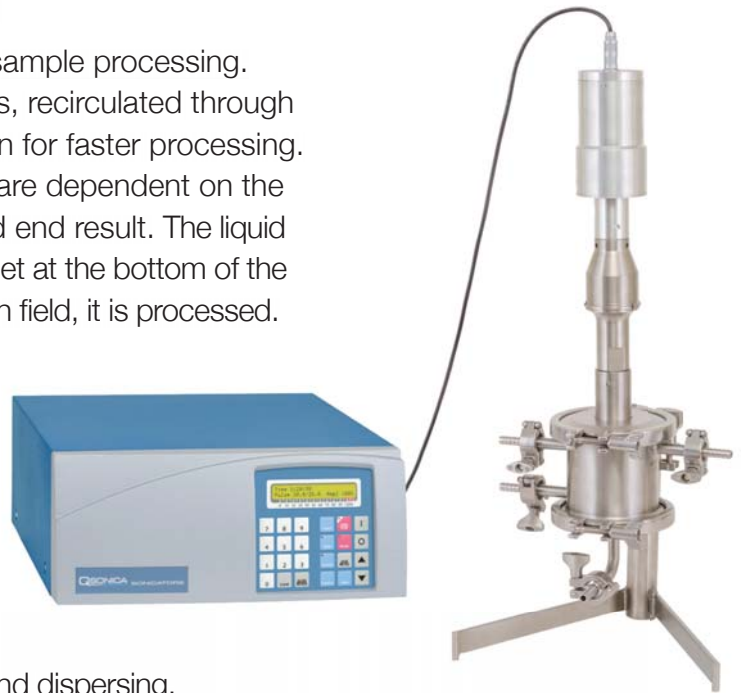
*\*Stand and clamp can be used inside of enclosure.*

### High Volume In-Line Processing

Flocells offer inline/continuous, large volume, sample processing. The sample may be processed in a single pass, recirculated through multiple times or have a multi-unit configuration for faster processing. The type of configuration and actual flow rate are dependent on the individual application, sample type and desired end result. The liquid sample is pumped into the Flocell through the inlet at the bottom of the unit. As the sample passes through the cavitation field, it is processed. The processed liquid exits the unit through an outlet port. The degree of processing can be controlled by adjusting the intensity of sonication as well as flow rate.

The unit is recommended for processing volumes of 5L or larger. Routine applications include emulsification, cell lysis, degassing, homogenization, solubilizing, deagglomerating and dispersing.

The Flocell is compatible with the Q2000 system. It is equipped with 1/2" sanitary connections and includes the #4676 probe. An integral water jacket is used to regulate both the system and the sample temperature for efficient operation. Use of a sound enclosure is always recommended.



Part #	Description
<b>4678</b>	<b>High Volume Flocell</b> <ul style="list-style-type: none"> <li>• Includes #4676 Probe</li> <li>• Material: 316L Stainless Steel</li> <li>• 1/2" (13mm) Sanitary connections</li> <li>• Internal volume: 250ml</li> <li>• Water jacketed for cooling</li> </ul>
<b>4676</b>	<b>1.5" (38mm) Diameter Flocell Probe</b>

*Note: Pump system, compressed air source, chiller and tubing are not included.*

### Optional Chiller

A recirculating chiller is available to cool the Flocell's water jacket. The #4906 is a 400 watt chiller with external dimensions of 13"H x 11"W x 13"D.



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