



Lab Ultrasonic Processors for axial probes

NexTgen Lab120 Ultrasonic Processor for small volume applications

Ultrasonic processor NexTgen Lab120:

1. Ultrasonic power supply from the NexTgen range delivering up to 120W_{rms} with the reliable probe:

Main features:

- Control mode : auto-tuned frequency mode,
- Start/Stop with dry contact or a footswitch,
- LabTablet interface for easy setting
- Ethernet connection for PC monitoring and control,
- Dimensions: (LxWxH) 330x145x148mm
- Weight : 3,5kg
- Power 220/240V, 50/60Hz



2. Ultrasonic 35kHz converter:

- Diameter: 40mm
- Length : 85mm
- Converter cable: 1,8m length



3. Standard 35kHz ultrasonic probe:

- Tip diameter 3mm solid probe for treatment up to 50ml,

4. Controlling and monitoring the power supply with the "NexTgen Advanced" software (optional):

- Acquisition of information on PC via Ethernet connection, recovery of ultrasound and temperature data for post-processing on Excel with the "NexTgen Advanced» PC software,
- Various setting for pulse, time, modulation and temperature control.



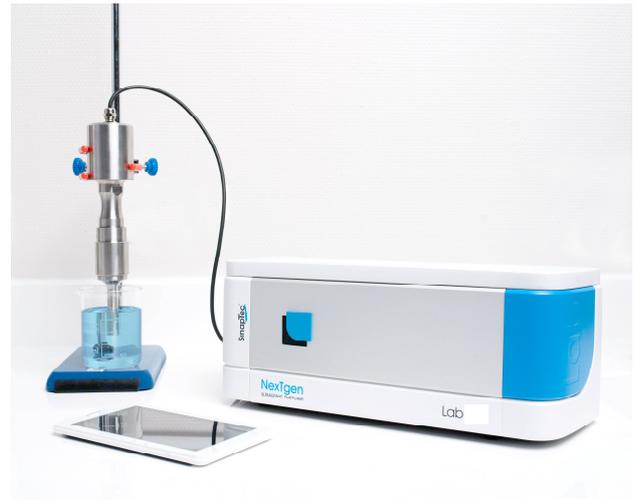
NexTgen Lab500 Ultrasonic Processor for small and medium volume applications

Ultrasonic processor NexTgen Lab 500:

1. Ultrasonic power supply from the NexTgen range delivering up to 500W_{rms} with the reliable probe:

Main features:

- Control mode : auto-tuned frequency mode,
- Start/Stop with pushbutton or a footswitch,
- LabTablet interface for easy setting
- Ethernet connection for PC monitoring and control,
- Dimensions: (LxWxH) 390x145x148mm
- Weight : 4,3kg
- Power 220/240V, 50/60Hz



2. Ultrasonic 20kHz converter:

- Diameter: 55mm
- Length : 145mm
- Converter cable: 1,8m length
- Air Cooling input/output.



3. Standard 20kHz ultrasonic probe:

- Tip diameter 13mm solid probe for treatment up to 250ml,
Max displacement 140µm

4. With the option "NexTgen Advanced" software": Controlling and monitoring the process (optional)

- Acquisition of information on PC via Ethernet connection, recovery of ultrasound and temperature data for post-processing on Excel with the "NexTgen Advanced» PC software,
- Various setting for pulse, time, modulation and temperature control.



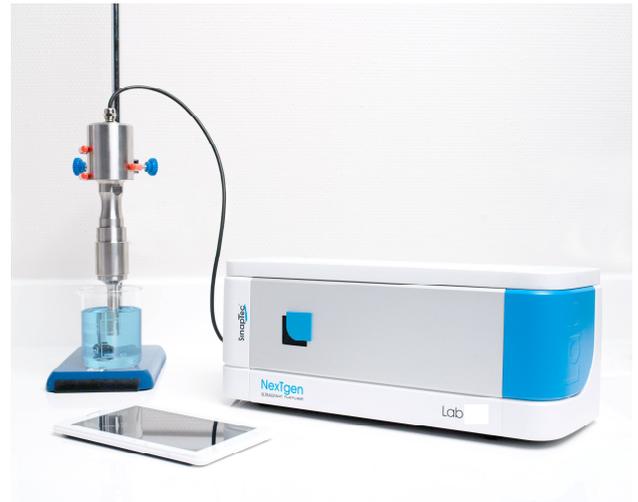
NexTgen Lab750 Ultrasonic Processor for medium volume applications

Ultrasonic processor NexTgen Lab750:

1. Ultrasonic power supply from the NexTgen range delivering up to 750W_{rms} with the reliable probe:

Main features:

- Control mode : auto-tuned frequency mode,
- Start/Stop with pushbutton or a footswitch,
- LabTablet interface
- Ethernet connection for PC monitoring and control,
- Dimensions: (LxWxH) 390x145x148mm
- Weight : 4,5kg
- Power 220/240V, 50/60Hz



2. Ultrasonic 20kHz converter:

- Diameter: 55mm
- Length : 145mm
- Converter cable: 1,8m length
- Air Cooling input/output



3. Standard 20kHz ultrasonic probe:

- Tip diameter 20mm solid probe for treatment up to 500ml, Max displacement 60µm

4. With the option "NexTgen Advanced" software": Controlling and monitoring the process

- Acquisition of information on PC via Ethernet connection, recovery of ultrasound and temperature data for post-processing on Excel with the "NexTgen Advanced» PC software,
- Various setting for pulse, time, modulation and temperature control.



- Optional devices
- **Temperature control device:** includes a temperature sensor connected to the ultrasonic generator to allow temperature monitoring. The operation of the temperature control device is performed by the **“Advanced” PC software** which acquires data and processes them according to the same principle as the power curve. It is thus possible to have curves showing ultrasound measures in association with the evolution of the product temperature. The temperature management -when it is to be regulated- is performed by setting a maximum operating threshold. As we approach this threshold, it will trigger a temporary reduction / stoppage of ultrasonic power supplied to return to lower temperature.
- **Standard 20kHz ultrasonic probe:**
 - Tip diameter 13mm for treatment up to 250 ml,
 - Tip diameter 20mm for treatment up to 500 ml,
 - Tip diameter 25mm for treatment up to 1000ml,
 - Other size on request
- **Micro Tip 20kHz ultrasonic probe:**

A Micro Tip adaptor is necessary to connect the micro Tip probe to the transducer

 - Micro Tip 6mm in diameter,
 - Micro Tip 3mm in diameter,
 - Other size on request
- **Sound abating enclosure:**
 - White laminated box
 - Size (HxWxD) 750x400x400mm
 - Support for the transducer included
- **Others devices on request:**
 - Various flow cells
 - Up to 6 bars reactors
- Technical support



The NexTgen Ultrasonic power supply is connected to Ethernet and this makes easy to check the parameter configuration and do specific diagnostic. In any case, the NexTgen power supply delivers a specific data collection sheet that make easy to determine the default. For the most cases, a new parameter configuration is able to solve the problem. This new configuration is managed by mail with our local representative in a very short time. For any questions, please contact your local representative.

NEXTGEN ULTRASONIC TECHNOLOGY Main Features

The NexTgen power supply range:

The world wide patented NexTgen Ultrasonic power supply is one of the most advanced technology developed by a team of more 30 years experienced in ultrasound technology. It is available from 100W to 750W power supply for laboratory liquid processing. For industrial use, power can be increased up to 2kW for large volume or circulating process.

A very easy to used LabTablet is supplied with the generator to manage the power setting and time. All the user defined parameters are recorded in the NexTgen Ultrasonic processor and it is possible to keep in memory the setting configuration.

Many parameters of the generators can be defined by computer thanks to an Ethernet connection with our "advanced" computer software.

The "Advanced" control and data acquisition software:

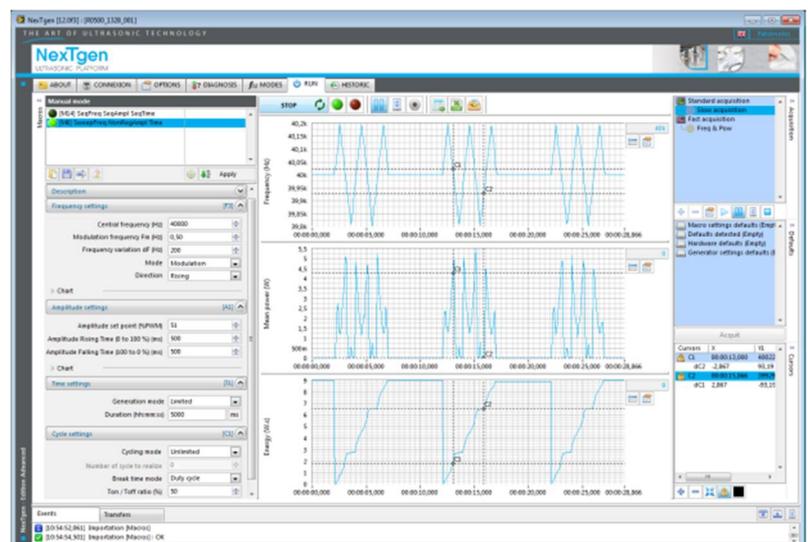
The very easy to use software allows you to centralize all exchanges between the NexTgen generator and the PC control. It controls the start / stop system.

It allows you to configure the following settings:

- Amplitude / Power,
- Frequency,
- Time up to 10H,
- Cycle up to 10000,
- Define start/stop conditions setting on energy, time, temperature..

It allows data treatment with:

- The real-time measurement of the power, cycle, frequency, temperature,
- The graph visualization,
- Data export to Excel,
- Various features analysis,
- Various diagnoses...



The NexTgen Technology main features:

NexTgen Ultrasonic power supply			
TECHNICAL INFORMATIONS	NexTgen Lab120	NexTgen Lab500	NexTgen Lab750
CONTINUOUS Max RMS POWER	120	500	750
FREQUENCY (kHz)	35	20	20
CONTINUOUS MODE	yes	yes	yes
PULSE MODE	yes	yes	yes
VOLTAGE (V)	110-240	220-240	220-240
OTHER VOLTAGE	-	on request	on request
DIMENSIONS(HxWxD)	330x145x148mm	390x145x148mm	390x145x148mm
WEIGHT	3,5kg	4,3kg	4,5kg
REMOTE START/STOP	Pushbutton/Footswitch	Pushbutton/Footswitch	Pushbutton/Footswitch
TOUCH SCREEN INTERFACE	LabTablet	LabTablet	LabTablet
COMMUNICATION AND CONTROL	Ethernet	Ethernet	Ethernet
PC SOFT « NexTgen Advanced »	optional	optional	optional
TEMPERATURE SENSOR	Optional	Optional	Optional
MONITORING			
Microprocessor Based	Digital signal Processor		
Automatic tuning	Yes (start frequency and max-min frequency are adjustable with "advanced software")		
Phase control	Real time phase/ frequency control		
Automatic Amplitude Compensation	Real time output displacement control		
COMMAND /SETTING PARAMETER	Managed by our software PC "Advanced"		
Frequency	Set the Auto-tune range	Set the Auto-tune range	Set the Auto-tune range
Power/Amplitude	10% to 100% max power	10% to 100% max power	10% to 100% max power
Timer	from 0,5s to 10h	from 0,5s to 10h	from 0,5s to 10h
Pulse/cycle repetition	from 1 to 10000	from 1 to 10000	from 1 to 10000
Multiple program sequencer	up to 10 programs	up to 10 programs	up to 10 programs
Start/Stop	Footswitch/Pushbutton		
Stop conditions	Pushbutton/Footswitch/software/ time/energy/temperature(with temperature option) setting		
Start conditions	Pushbutton/Footswitch/software/Temperature(with temperature sensor) setting		
DATA TREATMENT	Managed by our Software PC "Advanced" (Optional)		
On demand Real time Display	3 Real time curves during the process :		
Post treatment data:	Excel exportation for statistical post analysis:		
Frequency measurement	Parameters :	Frequency/Phase	
Wattmeter/amplitude		RMS Power/amplitude on transducer	
Energy measurement		energy with possible stop conditions on Energy level	
Temperature measurement		Temperature from external sensor (option)	
Elapsed time indicator	Yes		

Note: *The maximum delivered power depends of the size of probe diameter and immersion. Typically a 13mm diameter will be able to process 100w to 150Wrms power.



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