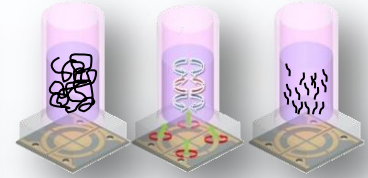
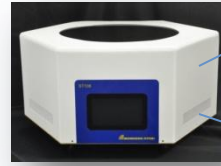




## NextGen ULTRASONIC SHEARING in the most efficient and flexible form

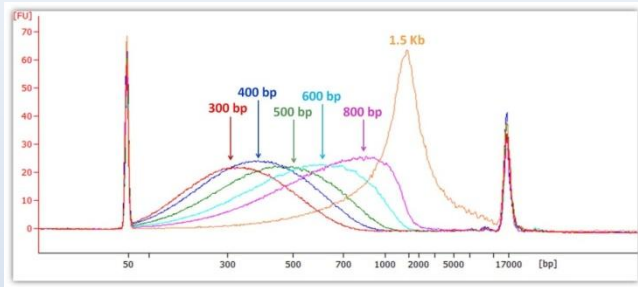
The **Microsonics ST™** high-throughput sample prep system, powered by Bulk Lateral Ultrasonic (BLU™) technology combines a high power output with a small form factor, and is the most efficient and flexible shearing system for Next Generation Sequencing (NGS) applications. BLU technology enables very powerful yet highly controllable shear forces to fragment samples at all current target lengths.



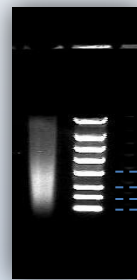
The Microsonics ST™ system shears up to 24 samples automatically using BLU™ technology. To receive high quality fragments, users will simply place the sample tubes in the system and specify the “Dial a DNA Fragment” settings.

### DNA & Chromatin Shearing – the **Microsonics ST** system

- Provides high quality sample fragments from 150 bp to 5 Kb in one single device
- Provides tight fragment distribution with Thermo Matrix 2D-barcoded storage tubes; no costly consumables
- Requires only 50 µL of starting sample, significantly reduces sample consumption
- Provides high throughput – automation allows up to 24 samples to be processed simultaneously. Just touch the button, walk-away and let the instrument do the work
- Provides “Dial a DNA Fragment” settings with user-friendly controls for maximum flexibility



Lambda DNA samples sheared to target fragment sizes of 300 bp, 400 bp, 500 bp, 600 bp, 800 bp and 1.5 Kb by specifying the “Dial a DNA Fragment” settings.



500 bp  
300 bp  
200 bp  
100 bp

Chromatin extracted from GM12878 cell line sheared to 400 bp fragments.

Feature	Benefit
150 bp – 5 Kb shearing range in one single device	One system for many NGS applications
Uses commercially available sample tubes	Reduces consumable costs
50 µL starting sample volume	Saves precious sample
Tight fragment distribution	High target fragment yield
Automated for 24 samples	Walk-away time increases productivity
Upgrade path	Increasing throughput as volumes grow

### System Upgrade Path

The simple upgrade path of the **Microsonics ST** series allows customers to purchase a device that meets their volume needs today and upgrade their throughput capacity at a later time:

• **Microsonics ST300H** – for processing 1 to 50 samples a day. The ST300H system processes 24 samples in 3 hours\* or less depending on the desired target fragment size. This model can be upgraded to the ST300R or the ST300X system.

• **Microsonics ST300R** – for processing 10 to 100 samples a day. The ST300R system processes 24 samples in 1.5 hours\* or less. This model can be upgraded to the ST300X system.

• **Microsonics ST300X** – for processing 100 or more samples a day. The ST300X system processes 24 samples in 30 minutes\* or less.

\*Sample process time based on 400 bp target size and 50 µL starting sample volume. Higher target fragment sizes require shorter process times.

### Microsonics ST Series Product Specifications

#### Power Requirements

- 100-120V AC 50/60Hz 15A 250V AC, 15 A
- 200-240V AC 50/60Hz 10A 250V AC, 15 A

#### Vacuum Requirements

- Free air flow rate: 2.95CFM, 5 m<sup>3</sup>/hour, or 83.4 L/min
- Min. airflow at vacuum: 23 inch-Hg (gauge/below atmosphere) @ 1.5CFM, or 176 torr or 234 mbar @ 42.48 L/min, or 23.43 Kpascal @ 2.55 m<sup>3</sup>/hour

#### Chiller Requirements

- External water chiller required

#### Operating Environment

- 15–35°C; 10%-80% relative humidity, non-condensing

#### MICROSONIC SYSTEMS

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