



**AUTOMATED
HIGH-CONTENT SHAKER
INCUBATOR LINE**

MAIN FEATURES

- Market's Highest Capacity
- Includes Multiple Independent Shaker Platforms
- Simple Integration or Upgrade in the External Automation
- Maximum Shaker Running Time Making Frequent Accesses Possible
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses

The new Automated High-Content Shaker incubator line addresses the need for increasing shaking capacity in modern automated laboratory applications. For the first time, Liconic succeeded in doubling and quadrupling the capacity of the existing automated shakers.

The large number of plates stored in the new Automated High-Content Shaker Incubator results in frequent plate accesses. This, and the need for pausing the shaker motion during the time of the actual plate transfer, lead to numerous interruptions of the overall shaking time. In order to overcome this interruption time problem, the shaker system of the Automated High-Content Shaker incubator is split into multiple shaker platforms.

The new groundbreaking Automated High-Content Shaker incubators include - depending on their capacity - two or four independent shaker platforms. Each platform is individually configurable and independently controlled. In other words, each shaker platform may be configured for a different amplitude and run at a different velocity resp. frequency. During access on any plate, only one shaker is halted over the short term of repetitive while the other shaker platforms maintain shaking.

Plates are accessed by a single integrated robot and transferred to and from a single transfer location. A transfer port between the incubator and the external laboratory robotic lowers automation costs and adds simplicity. The upward compatible communication interface eases integration work.

The design of the new Automated High-Content Shaker Incubator line is based on Liconic's longtime-proven Automated Shaker technology. Liconic has continuously optimized their Automated Shakers technology for better energy efficiency because any heat dissipation inside the incubation chamber negatively impacts the incubator's sensitive climate. By minimizing such unwanted dissipations, Liconic shakers operate without the requirement of any external chiller and therefore maintain uncompromised high incubation climate quality.



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0...1200
RPM
1...6mm
Orbital
0...50mm
Linear

**AUTOMATED
HIGH-CONTENT
SHAKER INCUBATOR
LINE**



Each shaker platform may be configured for individual shaking amplitudes. Shaking speeds resp. frequencies may individually be set for each shaker platform. The latter is selectable anytime by sending a parameter through the communication interface. The Automated High-Content Shaker Incubator design is based on Liconic's longtime-proven Automated Shaker technology. Over years of continuous development and optimization,

STX44 Shaker

- 44 MTP Capacity
- Simple Integration or Upgrade in the External Automation
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses



Liconic's new shakers have become so efficient that any negative impacts on the incubation climate have become insignificant. Without any need for external chillers, climate conditions in the new Automated High-Content Shaker incubators are equally high and precise such as in an ordinary non-shaker incubator.

STX56 Shaker

- 56 MTP Capacity
- Simple Integration or Upgrade in the External Automation
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses



STX112 Dual-Shaker

- Huge 112 MTP Capacity
- Includes Multiple Independent Shaker Platforms
- Simple Integration or Upgrade in the External Automation
- Maximum Shaker Running Time Making Frequent Accesses Possible
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses

The new STX112 High-Content Shaker incubator addresses the need for the ever increasing numbers of plates for shaking in modern laboratory automation applications. The STX88 includes two individually controlled shaker platforms. Each shaker platform is freely configurable and may be independently controlled. Plates are transported by a single integrated robot and transferred to and from a single transfer location. During plate access, only the part of the shaker holding the plate to be accessed is stopped for the short duration of the transfer.



ORBITAL SHAKER

Technical Specifications		
Shaker Motion	orbital	
	Amplitude [mm PP] *)	Speed [min-1] **)
	1	0-1200
	1.5	0-1000
	2	0-800
	3	0-600
Performance	4	0-600
	6	0-400
	All SBS-Format Plates (MTP, DWP...)	
	Shaker-Type, All Stainless Removable by User	
Labware	Cassette	
	Communications Through Standard Port	
Software Control	Activate / Deactivate	Software, Remote Command
	Speed	Software, Remote Parameter
	Plate Access	Automatic
	Positioning	Automatic
	Robotic Access	Software, Remote Command
	Manual Access	Front Door by User
Manual Operation	Cassette Access	Manually by User
	Shaker Safety	Automatic Stop by Front Door
Options	BCR Plate Identification	

LINEAR / AGITATION SHAKER

Technical Specifications		
Type	Linear	Agitation
Amplitude	1-100 mm	12-300 rpm
Frequency	Software Adjustable	
Positioning	Integrated	
Handling Access Control	Automatic	
Manual Access	User Door	
Activate / Deactivate	Remote Control	

Order Information Shaking option

Linear	Applies for	Order Nr.
	STX110/140	9131 00 18
	STX220/280	9122 05 15
	STX500	9132 05 15
Linear Shaking Option	LPX110/140	9144 00 59
	LPX220/280	9144 00 60
	LPX440/500/740	9141 02 19
	STR240	9143 02 00
	LPR240	9143 02 01

STX88 Dual-Shaker

- Huge 88 MTP Capacity
- Includes Multiple Independent Shaker Platforms
- Simple Integration or Upgrade in the External Automation
- Maximum Shaker Running Time Making Frequent Accesses Possible
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses

The new STX88 High-Content Shaker incubator addresses the need for the ever increasing numbers of plates for shaking in modern laboratory automation applications. The STX88 includes two individually controlled shaker platforms. Each shaker platform is freely configurable and may be independently controlled. Plates are transported by a single integrated robot and transferred to and from a single transfer location. During plate access, only the part of the shaker holding the plate to be accessed is stopped for the short duration of the transfer.



STX176 High-Content Shaker

- Market's Highest Capacity
- Includes Multiple Independent Shaker Platforms
- Simple Integration or Upgrade in the External Automation
- Maximum Shaker Running Time Making Frequent Accesses Possible
- Ultra-stable Climate Maintained despite the Stress of Frequent Accesses

The new STX176 High-Content Shaker incubator addresses the need for the ever increasing numbers of plates for shaking in modern laboratory automation applications. The STX176 includes four individually controlled shaker platforms. Each shaker platform is freely configurable and independently controllable. Plates are transported by a single integrated robot and transferred to and from a single transfer location. During plate access, only the part of the shaker holding the plate to be accessed is stopped for the short duration of the transfer.

