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Find the *Kaijo 68101-A3T-UL* at our website: ***Click HERE***

KAIJO®

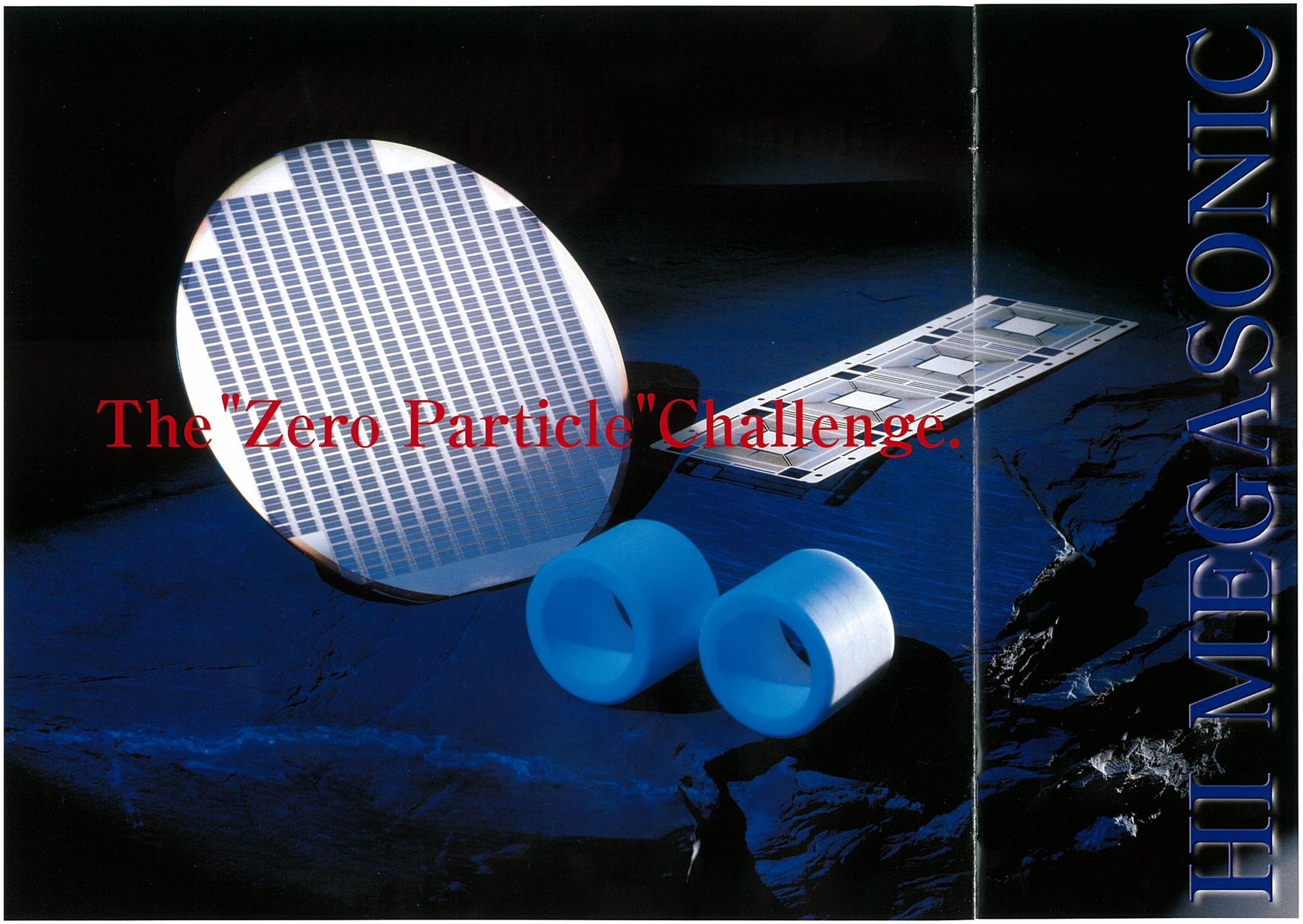


HI MEGASONIC®

CLEANING SYSTEM

KAIJO CORPORATION

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HI MEGASONIC® removal of particles to < 45nm.

A precision cleaning system developed for the unique requirements of the Semiconductor, FPD, Hard Disc, and Crystal industries.
Kaijo, a world leading manufacturer of semiconductor processing equipment, has developed a new HI MEGASONIC® cleaning system.
KAIJO HI MEGASONIC® series utilizes high frequencies to remove particles to less than 45nm.
Conventional 28-50kHz ultrasonic cleaning systems do not have theenergy to remove submicron particles.
HI MEGASONIC® series operates at 950kHz, the shorter wavelength promotes submicron particle removal by accelerating water molecules to greater than 2×10^5G.
The 950kHz high frequency system eliminates the risk of damage due to cavitation.



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HI MEGASONIC

HI TECHNOLOGY
HI QUALITY
HI PRECISION
HI MEGASONIC®

Submicron particle removal
At 950kHz, water molecules are accelerated to greater than 2×10^5G.

No cavitation damage
The 950kHz high frequency system eliminates the risk of damage due to cavitation.

High Power Density
Power density up to 5.4 watts/cm²

Full Power Cleaning
All transducers are powered simultaneously.

Maximum Power Efficiency
Kaijo's patented transducer bonding technique promotes maximum power transmission.

Applications
For cleaning of Si and GaAs wafers, LCD glass, masks, hard disks, crystal elements, magnetic heads, and more.



New Digital Generator

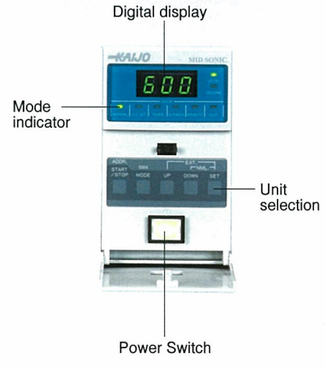
Communications:
1.communication with host computer
2.central control of US output power
3.self diagnosis of operational conditions.

Digital Display
The 3 digit display allows accurate real time control.

Upper & Lower Limit Control
Constant output monitoring to insure that power is stable within users programmable limits.

PLL automatic frequency tracking system
Kaijo's patented PLL system maintains a constant output independent of normal load variations. No remote power matching unit is required.

High Efficiency Generator
The generator is highly efficient due to the adaptation of Power MOS FET devices.

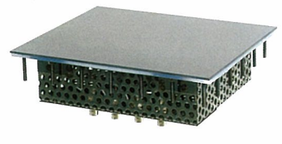


Features of Transducer elements

- Large size PZT transducer elements achieve equable and uniform object surface cleaning in the bath.
- High power density provides high cleaning effcts (Max. approx. 5.4W/cm²) .
- Thick vibration plate is durable for long time use easy to install to bath.
- Less power loss by vibration plate due to resonance effect offers high efficiency.
- Large size transducer elements need less joint zone, which provides better cleaning conditions.

The vibration Plate

- This vibration plate is installed to tha bath with screws etc.
- SU304,316 or 316L ptate can be used for the vibration plate depend upon cleaning solutions.



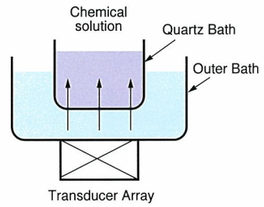
The cleaning bath

- All required procedure for the installation of the vibration plate with the transducer elements is to bond it to the SUS bath bottom directly and pore cleaning solution to the bath.
- Stainless steel such as SU304, 316 or 316L can be used as bath material.



Indirect Emission Type Quartz Bath

By installing a SUS vibration plate to a outer bath, setting a quartz bath in outer bath, corrosive solution such as SC-1 can be used for process without worry of metallic higher than durable temperature limit of the transducer element.

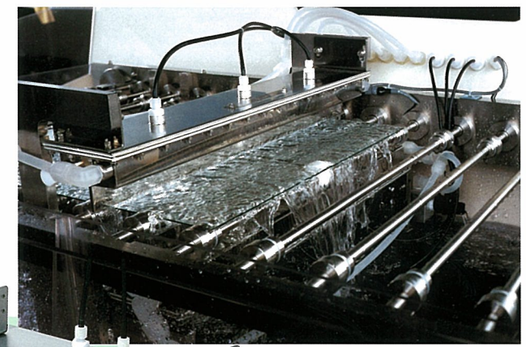


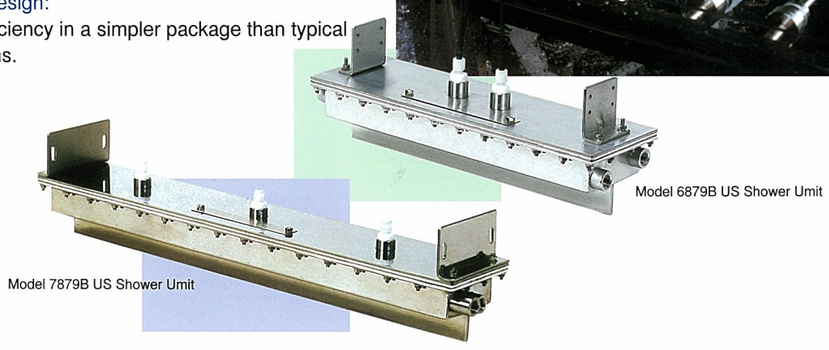
Consult with Kaijo upon specifications of bottom plate of the quartz bath on US energy transmission.

HI MEGASONIC® Shower

- Five times the cleaning efficiency of conventional ultrasonic showers.
- May be used to simultaneously clean both surfaces of a substrate.
- HI MEGASONIC removal of particles to < 45nm.
- The 950kHz high frequency system eliminates the risk of damage due to cavitation.

■Unique shower design:
Higher cleaning efficiency in a simpler package than typical lens shower systems.





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SPECIFICATION

Generator



Model 68101

●Accessories

Vibration Plate	Output cables

●Options

Generators	68101:2,3 output 78101:3,4 output 78102:4,6 output
Vibration Plate	Output cables,cutom length,Nuts
US Shower	Level Sensor/Flow Sensor
Noise Filter	FCC or CE-Marking requiement

●Generator Specifications

Model	68101	78101	78102
Max Output Power	600W (4 output)	900W (6 output)	900W (8 output)
Frequency	950kHz		750kHz
Oscillation	Voltage Control Oscillator (V.C.O.)		
Frequency	Automatic Trecking		
Power Control	Level Indicator (LED Display)		
Remote Control	Possible		
Environment Temp	0～40℃ (32～104°F)		
Standard Functions	See below		
Power Consumption	AC200V 6.0A	AC200V 10A	
Dimensions	320×520×144mm	460×500×143mm	
Weight	17kg	25kg	

●Standard Functions:
Remote start circuit, Upper and lower power limits, variouserror signals, output open and output short limits, thermometer limits 1&2, analog output terminals, 8 step output control, timer operation, serial interface port (RS 485).

For 6"Wafer : C-7857S-61



150W×4

Model 68101 (4 output) Generator

Model 7857S
Vibration Plate

●Vibration Plate Specification

Model	7857S
Max Input Power	300W×4
Frequency	950kHz
US Emitting Area	136×163mm
Materials of Plate	SUS316L
Transducer Elements	P.Z.T.
Max.Liquid Temp	70℃(158° F)
Dimensions	185×215×55mm
Fixing	Fixing with bolts with silicone seals
Combination	68101(2 output)×2or68101(4 output)×1

For 8"Wafer : C-8857S-71



150W×6

Model 78101 (6 output) Generator

Model 8857S
Vibration Plate

●Vibration Plate Specification

Model	8857S
Max Input Power	300W×6
Frequency	950kHz
US Emitting Area	165×215mm
Materials of Plate	SUS316L
Transducer Elements	P.Z.T.
Max.Liquid Temp	70℃(158° F)
Dimensions	255×305×55mm
Fixing	Fixing with bolts with silicone seals
Combination	68101(2 output)×3or68101(3 output)×2 78101(6 output)×1or78101(3 output)×2

For 300mm Wafer : C-98SL-72



112.5W×8

Model 78102 (8 output) Generator

112.5W×8

Model 78102 (8 output) Generator

Model 98SL
Vibration Plate

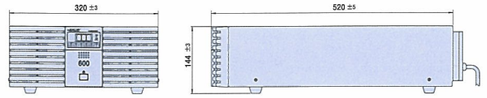
●Vibration Plate Specification

Model	98S	98SL
Max Input Power	300W×16	
Frequency	950kHz	750kHz
US Emitting Area	273×327mm	275×319mm
Materials of Plate	SUS316L	
Transducer Elements	P.Z.T.	
Max. Liquid Temp	70℃(158°F)	
Dimensions	390×370×55mm	410×340×65mm
Fixing	Fixing with bolts with silicone seals	
Combination	78101 (4 output)×4 68101 (4 output)×4 68101 (2 output)×8	78102 (8 output)×2 78102 (4 output)×4

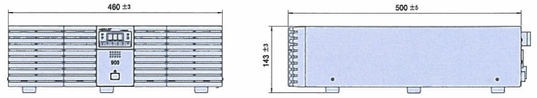
DIMENSIONS

Generator

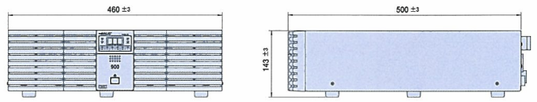
Model 68101 generator



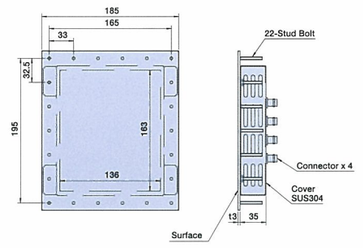
Model 78101 generator



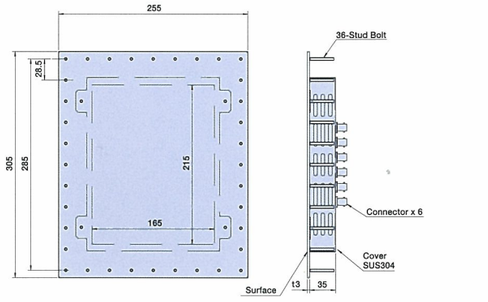
Model 78102 generator



Vibration Plate



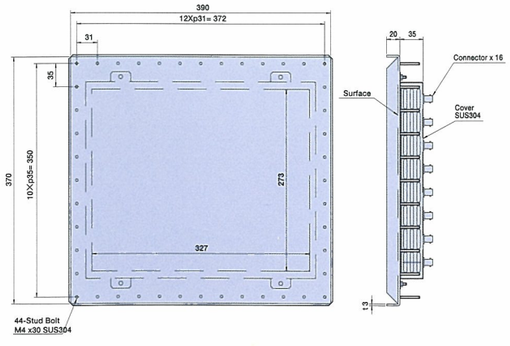
Model 7857S Vibration Plate (for ϕ6" 1 Carrier)
※Please consult with Kaijo when ordering the vibretion plate for ϕ6" 2 Carriers.



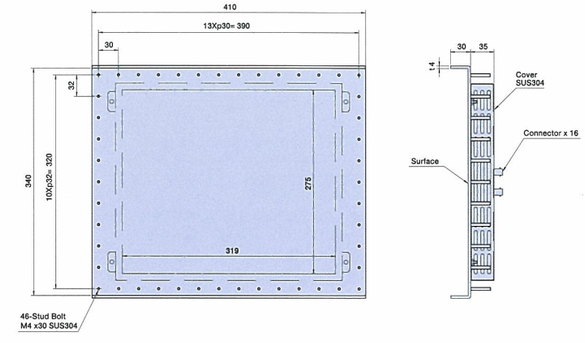
Model 8857S Vibration Plate (for ϕ8" 1 Carrier)
※Please consult with Kaijo when ordering the vibretion plate for ϕ8" 2 Carriers.

●Dimensions of vibration plates: Kaijo has an array of standard vibration plate size, custom designs are available upon request.

Vibration Plate



Model 98S Vibration Plate (for 300mm 1 Carrier)



Model 98SL Vibration Plate (for 300mm 1 Carrier)

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For LCD substrate:C-7897BK-71



300W×3

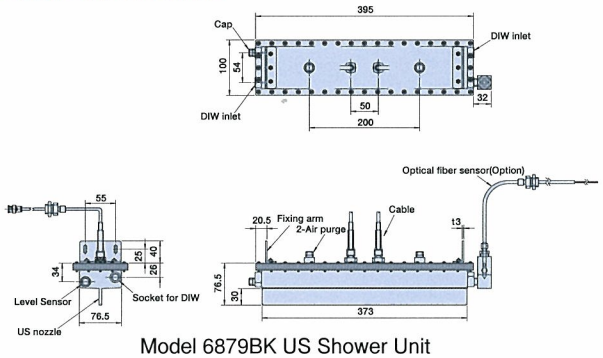
Model 7879BK
Vibration Plate

Model 78101 Generator

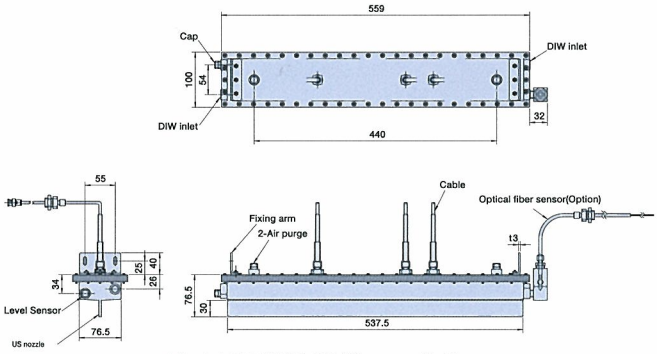
US Shower Specification

Model	6879B	7879B
Max Input Power / Max Output Power	300W	900W
Frequency	950kHz	
Allowable Cleaning Size / Oscillation	335mm	495mm
Materials of Oscillation Plate/Freg Turning	SUS316L	
Required DIW Volume / Power Control	20～25L/min	25～30L/min
Materials of Plate	SUS316L	
Max. Liquid Temp	70℃(158°F)	
Inner Surface Finishing	(MCP) Mechanical Chemical Polishing	
Dimensions	395×100×75.5mm	559×100×75.5mm
Fixing	Fixing with four M5 bolts	
Combination	68101 (2 output)	78101 (3 output)

DIMENSIONS



Model 6879BK US Shower Unit



Model 7879BK US Shower Unit

- Dimensions of vibration plates: same as above.
- Kaijo has an array of standard US shower units, custom sizes are available upon request.
- Option: Liquid surface sensor
  K type=Optical type sensor
  F type=Float type sensor

⚠ CAUTION

Do not operate the system prior to reading "OPERATION MANUAL of the HI MEGASONIC® CLEANING SYSTEMS"

To protect personnel and product, the systems should be installed in clean, well ventilated areas. The generators should be installed within a stable rack system away from liquid sources. Do not open cover plate of the generator, disassemble the vibration plate or modify any system component.

Operation:
1.These products should be used only for specified applications.
2.These systems are not effective for cleaning oil or grease.
3.Do not oprate these systems without a cleaning solution.
4.Make sure that no tape or film is affixed to the vibration plate.
5.The output cables must be connected prior to operation.

Installation:
1.The systems radiate heat , please install in well ventilated areas.
2.Input power must be within the specified voltage range.
3.Generator mounting must be sufficient to provide a stable working platfom.
4.To prevent liquid leakage, the vibration plate mounting screws should be occasionally tightened.

Catalog:
1.Specifications and extemal views of the systems are subject to change without prior notice.
2.Brochure printing may alter the actual system colors.
3.Custom vibration plate, US Shower, and baths are available, please contact your local Kaijo representative.

Warranty:
Repair parts supply is limited to 5 years after termination of this product.

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