



## SONOSYS® Megasonic System with Transducer Plates for Processing Tanks

**Completely continuous active  
Transducer Array**

Transducer plate welded in stainless steel tank with 2000 W Generator

### Function

Transducer plates made of Aluminium or Stainless steel for assembling at the bottom or the side wall of a tank. Transducer plates with PFA-coating are offered. These plates are available for substrate sizes of 4", 6", 8" or 12", but also custom specific solutions are offered. All over the world, SONOSYS® stands for unique and future-secured solutions. The extremely uniform energy transmission ensures a hitherto-unachieved cleaning performance of particles down to the nano range, while at the same time providing the best protection to the microstructures.

**Unique in the world:** our transducer systems, with patented piezo-ceramics, achieve a **40% higher sound pressure** or an **up to 30% higher efficiency**, than other systems.

### Application

Cleaning of Substrates and Semiconductor Wafers with 100 mm, 150 mm, 200 mm and 300 mm in Single- or Dual Carrier.

### Technical data modular Generator

#### Electrical data

<b>Output power:</b>	500 Watt or 1000 Watt or 2000 Watt
<b>Output power adjustment:</b>	Approx. 10 % - 100 %
<b>Frequency:</b>	<b>1 MHz</b> ( 950 kHz – 1.05 MHz) <b>2 MHz</b> (1.95 MHz – 2.05 MHz)
<b>Main Voltage:</b>	230 VAC; 50 – 60 Hz
<b>Option:</b>	RS 232

#### Mechanical data

<b>Housing:</b>	19" enclosure 3/4 U
<b>Dimensions 500 W:</b>	28 HP; 165x185x329 mm (WxHxD)
<b>Weight 500 W:</b>	approx. 4,5 kg
<b>Dimensions 1000 W:</b>	42 HP; 236x185x395 mm (WxHxD)
<b>Weight 1000 W:</b>	approx. 7 kg
<b>Dimensions 2000 W:</b>	84 HP; 450x185x395 mm (WxHxD)
<b>Weight 2000 W:</b>	approx. 14 kg

#### Operational conditions

<b>Ambient temperature:</b>	+ 10 °C to + 40 °C
Condensed moisture is to be prevented! Protected from humidity, dirt and aggressive vapours.	

**Order data for the Megasonic Systems with Transducer plates**

**Technical data Megasonic Transducer plate for 1 Carrier 4" Wafer**

<b>Outer dimension:</b>	Approx. 160x160x11 mm
<b>Transduced area:</b>	Approx. 100x100 mm; <b>completely continuous</b>
<b>Material:</b>	Aluminium with PFA-coating
<b>Transducer array:</b>	Special PZT-Piezoceramic
<b>Output power:</b>	500 Watt / 1 MHz 300 Watt / 2 MHz
<b>HF-cable:</b>	1 piece; Length: 3 m; Material: PTFE
<b>Liquid temperature:</b>	+ 60° C, + 80° C with Nitrogen-Cooling
<b>Storage- and Transport temperature:</b>	Max. up to <b>-10° C</b>
<b>Order Number Transducer plate:</b>	<b>13740-132</b>
<b>Order Number Generator:</b>	<b>13401-272</b> (500 Watt; 230 VAC)

**Technical data Megasonic Transducer plate for 2 Carrier 4" Wafer**

<b>Outer dimension:</b>	approx. 424x160x11 mm
<b>Transduced area:</b>	approx. 320x105 mm; <b>completely continuous</b>
<b>Material:</b>	Aluminium with PFA-coating
<b>Transducer array:</b>	Special PZT-Piezoceramic
<b>Output power:</b>	1000 Watt / 1 MHz 600 Watt / 2 MHz
<b>HF-cable:</b>	2 pieces; Length: 3 m; Material: PTFE
<b>Liquid temperature:</b>	+ 60° C, + 80° C with Nitrogen-Cooling
<b>Storage- and Transport temperature:</b>	Max. up to <b>-10° C</b>
<b>Order Number Transducer plate:</b>	<b>please request</b>
<b>Order Number Generator:</b>	<b>13401-634</b> (1000 Watt; 230 VAC)

**Technical data Megasonic Transducer plate for 1 Carrier 6" Wafer**

<b>Outer dimension:</b>	220x220x11 mm
<b>Transduced area:</b>	174x174 mm; <b>completely continuous active</b>
<b>Material:</b>	Aluminium with PFA-coating
<b>Transducer array:</b>	Special PZT-Piezoceramic
<b>Output power:</b>	1000 Watt / 1 MHz 600 Watt / 2 MHz
<b>HF-cable:</b>	2 pieces; Length: 3 m; Material: PTFE
<b>Liquid temperature:</b>	+ 60° C, + 80° C with Nitrogen-Cooling
<b>Storage- and Transport temperature:</b>	Max. up to <b>-10° C</b>
<b>Order Number Transducer plate:</b>	<b>13740-182</b> (PFA-coated)
<b>Order Number Generator:</b>	<b>13401-634</b> (1000 Watt; 230 VAC)

### Technical data Megasonic Transducer plate for 2 Carrier 6" Wafer

Outer dimension:	Approx. 424x215x11 mm
Transduced area:	Approx. 320x160 mm; <b>completely continuous</b>
Material:	Aluminium with PFA-coating
Transducer array:	Special PZT-Piezoceramic
Output power:	2x 1000 Watt / 1 MHz 2x 600 Watt / 2 MHz
HF-cable:	2 pieces; Length: 3 m; Material: PTFE
Liquid temperature:	+ 60° C, + 80° C with Nitrogen-Cooling
Storage- and Transport temperature:	Max. up to <b>-10° C</b>
Order Number Transducer plate:	<b>please request</b>
Order Number Generator:	<b>13401-634</b> (1000 Watt; 230 VAC)

### Technical data Megasonic Transducer plate for 1 Carrier 8" Wafer

Outer dimension:	270x270x11 mm
Transduced area:	225x205 mm; <b>completely continuous active</b>
Material:	Aluminium with PFA-coating
Transducer array:	Special PZT-Piezoceramic
Output power:	2000 Watt / 1 MHz 1200 Watt / 2 MHz
HF-cable:	4 pieces; Length: 3 m; Material: PTFE
Liquid temperature:	+ 60° C, + 80° C with Nitrogen-Cooling
Storage- and Transport temperature:	Max. up to <b>-10° C</b>
Order Number Transducer plate:	<b>13740-137</b> (PFA-coated) <b>1 MHz</b> <b>13740-127</b> (PFA-coated) <b>2 MHz</b>
Order Number Generator:	<b>13401-702</b> (2000 Watt; 230 VAC) <b>1 MHz</b> <b>13405-600</b> (1200 Watt; 230 VAC) <b>2 MHz</b>

### Technical data Megasonic Transducer plate for 2 Carrier 8" Wafer

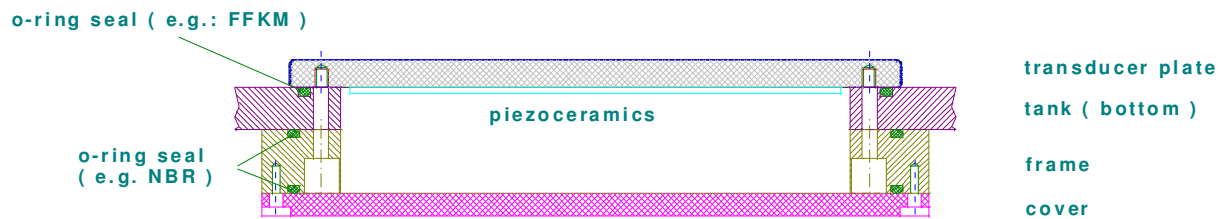
Outer dimension:	approx. 531x270x11 mm
Transduced area:	approx. 420x210 mm; <b>completely continuous</b>
Material:	Aluminium with PFA-coating
Transducer array:	Special PZT-Piezoceramic
Output power:	2 x 2000 Watt / 1 MHz 2 x 1200 Watt / 2 MHz
HF-cable:	4 pieces; Length: 3 m; Material: PTFE
Liquid temperature:	+ 60° C, + 80° C with Nitrogen-Cooling
Storage- and Transport temperature:	Max. up to <b>-10° C</b>
Order Number Transducer plate:	<b>please request</b>
Order Number Generator:	<b>13401-702</b> (2000 Watt; 230 VAC)

**Technical data Megasonic Transducer plate for 1 Carrier 12" Wafer**

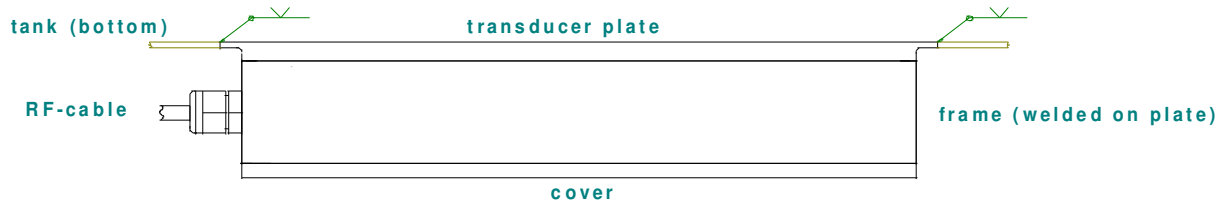
<b>Outer dimension:</b>	391x384x11 mm
<b>Transduced area</b>	305x348 mm; <b>completely continuous active</b>
<b>Material:</b>	Aluminium with PFA-coating
<b>Transducer array:</b>	Special PZT-Piezoceramic
<b>Output power:</b>	2x 2000 Watt / 1 MHz 2x 1200 Watt / 2 MHz
<b>HF-cable:</b>	4 pieces; Length: 3 m; Material: PTFE
<b>Liquid temperature:</b>	+ 60° C, + 80° C with Nitrogen-Cooling
<b>Storage- and Transport temperature:</b>	Max. up to <b>-10° C</b>
<b>Order Number Transducer plate:</b>	<b>13740-160</b> (PFA-coated)
<b>Order Number Generator:</b>	<b>13401-702</b> (2000 Watt; 230 VAC)

Also custom specific solutions are offered.

**Example of the assembly of a coated Transducer Plate into a Tank made of plastic**



**Example of the assembly of a stainless steel Transducer Plate into a Stainless Steel Tank**



Data sheet:	Revision:	Date:
Vers. 1.1	First Edition Original GER	27/04/2010
Vers. 1.2	Storage- and Transport temperature	04/04/2011
Vers. 1.3	Change generator order number; LED-display	25/05/2012
Vers. 1.4	Update of order no generator and dimensions	25/07/2012