SONOTEC
Ultrasonic Hand-Tools

Distributed By:

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2008.oct.

ULTRASONIC CUTTER 超音波カッター ソノファイル

SONOFILE®

SH-3510 /SF-3441 / SF-3410 / SF-3400 / SF-650 / SF-651/ SF-60

ULTRASONIC POWER

SONOFILE®

Ultrasonic Cutter Series

SONOFILE® maximizes the effect of high-speed, microscopic ultrasonic vibrations in “cutting.”
The amplitude of the blade is a microscopic vibration of 30–70 microns, depending on the model, with ultrafast reciprocation at 20,000–40,000 vibrations per second, which results in a sharp and cleanly-cut edge.
From a highly-workable small desktop type to a high-precision model mounted on industrial robots or automated machinery, select the model that is suitable for your application. We also have a standard line of blades of various shapes and materials so you can choose according to your particular cutting conditions and/or materials.
SONOTEC Co., Ltd. has been aggressively tackling ultrasonic technology since putting ultrasonic cutters on the market in 1994. Since then, our cutters have been assisting various production sites.
In order to respond to clients’ requests, we are continuously improving SONOFILE® to meet their needs.

Ultrasonic power produces high-quality products: SONOFILE Ultrasonic Cutter Series.

SONOFILE SYSTEM & LINE UP

The basic configuration is a set of an oscillator and a hand piece (transducer).
Before use, install a tool (blade) with a screw, which is necessary for the operation.

Machine/ robot-mounted type

manual-type hand piece

ULTRASONIC HAND-TOOLS SONOTEC STABILIZE Technology

Blade-holding method is patented (Patent No.: 3462118)

Ultrasonic cutter

SH-3510 BASE

P5-P6

Mount for high-power ultrasonic cutters on automated machinery or industrial robots. Suitable for high-powered cutting. Compatible with a large blade of 40 mm in length.

SH-3510(Oscillator)

SH-8700
Machine/robotmounted-type large amplitude transducer

High-power and high-rigidity transducer. Equipped with air inlet.

HG-110
Machine/robotmounted-type large amplitude transducer

Compatible with guillotine-type tools. Ideal transducer for gate-cutting, including push cutting of difficult-to-cut gates containing glass.

Ultrasonic cutter

SF-3441 BASE

P7-P8

Easy to mount on automated machinery or industrial robots. Makes sharp cuts with high-power, high-frequency ultrasonic cutters.
A new, highly versatile product allowing you to choose and change blade thickness.

SF-3441(Oscillator)

SF-8541
Machine/robotmounted-type large amplitude transducer

Compact and yet powerful. Designed to fully utilize the robot's operation area. Equipped with air inlet.

SF-8541R
Plotting cuttermounted-type large amplitude transducer

Equipped with a rotary head. The rotary connector for electric signal as well as the air inlet rotates simultaneously.

Ultrasonic cutter

SF-3410 BASE

P9-P10

Mountable on automated machine/robot. High-power ultrasonic cutter that can be combined with various types of transducers.

SF-3410(Oscillator)

SF-3110
Machine/ robotmounted-type transducer

Possible to select a horn suitable for your application and custom-make a blade that best suits your work requirements. Ideal for up-and-down push cut and punching.

SF-8500
Machine/robotmounted-type large amplitude transducer

High-amplitude ultrasonic cutter ideal for cutting three-dimensional parts with industrial robots, not to mention sheeting material cutouts.

SF-8500R
Plotting cuttermounted-type large amplitude transducer

SF-8500 with rotary connector. Plotter-mounted type.

Ultrasonic cutter

SF-3400 BASE

P11-P12

Mountable on automated machine/robot. High-power ultrasonic cutter that can be combined with various types of transducers

SF-3400(Oscillator)

SF-7400
Manual-type hand piece large

Compatible with large tools, such as chisel and knife shapes, to assist high-power manual operations, including stripping exterior walls of buildings and rust removal.

SF-3140
Manual-type hand piece llarge amplitude type

Highly versatile, high-amplitude, hand-tool compatible, with small and large blades according to your application.

Ultrasonic cutter

SF-650 BASE

P13

High-speed and high-performance ultrasonic cutter realizing a sharp cut, with user-friendly hand piece and desktop controller.

SF-650 (Oscillator)

HP-650
Manual-type hand piece

Remarkable cut! Lightweight, easy-to-hold, and simplified tool installation with newly-developed installation system.

Ultrasonic cutter

SF-651 BASE

P14

High-speed and high-performance ultrasonic cutter makes a sharp cut! Easy to mount on automated machinery or industrial robots.

SF-651 (Oscillator)

HP-651
Machine/ robotmounted-type transducer

Extended and continuous use possible with our controlling circuit and the air inlet for forced cooling.

Ultrasonic cutter

SF-60 BASE

P15-P16

Highly practical desktop ultrasonic cutter with stable vibration output and easy-to-hold hand piece. Automated machinery/plotting cutter mounted types also available.

SF-60 (Oscillator)

SF-9400
Manual-type hand piece

Compact hand piece suitable for light labor.

SF-6100
Machine/ robotmounted-type transducer

Machine/robot-mounted type

SF-6000
Plotting cuttermounted-type transducer

Rotary connector type, plotter-mountable.

SONOFILE SH-3510

High-power ultrasonic cutter with maximum power output of 500 W.

Oscillator with maximum power output of 500 W enables powerful cutting of difficult-to-cut and extra-tough materials. Abrasion resistant carbide blade with 1 mm thickness can be used. Signals for on/off, emergency stop, change of output level, and other features with automated machinery or industrial robots can be performed.

Features

- ◎ High-power ultrasonic cutter with maximum power output of 500 W is compatible with materials needing high-power cutting.
- ◎ Highly-versatile 30 kHz frequency.
- ◎ Takes carbide and large blades.
- ◎ Mountable on automated machinery/industrial robots.

Oscillator SH-3510

Applicable materials

- ◎ Carbon (CFRP).
- ◎ A range of prepregs (boron, Kevlar, polyethylene fiber, etc.).
- ◎ Rubber (vulcanized latex, non-vulcanized latex, sheeting material, sealing material, and tube).
- ◎ Thermoplastics (board, sheeting material, film, and laminated material).

Specification

Frequency	30 kHz
Frequency adjustment	Auto-tracking type
Maximum power output	500 W
Power output adjustment	Infinitive adjustment
Power supply	AC 200 V 50/60 Hz
Electricity consumption	1000 VA
Outer dimension	300 W × 400 D × 200 H (mm)
Weight	10 kg

Machine/robot-mounted high-amplitude transducer.

SH-8700 HG-110

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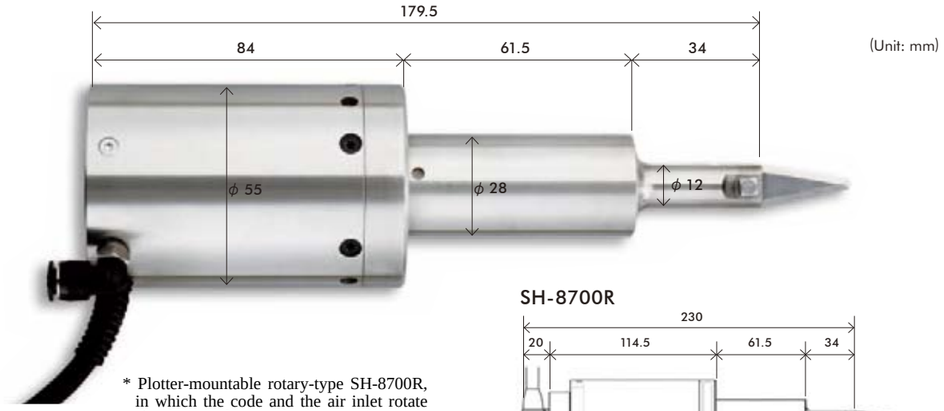
SH-8700

The transducer generates powerful and stable vibrations for high-power cuttings, and is designed to allow for extended continuous use.



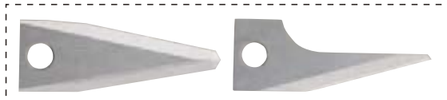
* Plotter-mountable rotary-type SH-8700R, in which the code and the air inlet rotate simultaneously, can also be manufactured.

SH-8700R

Specification

Vibration element	PZT piezoelectric transducer
Housing material	SUS 303
Outer dimensions	ϕ12/ϕ28/ϕ55 × 179.5 L (mm)
Weight	1100 g
Blade thickness	1.0 mm

Standard tool (used for interior materials of cars).

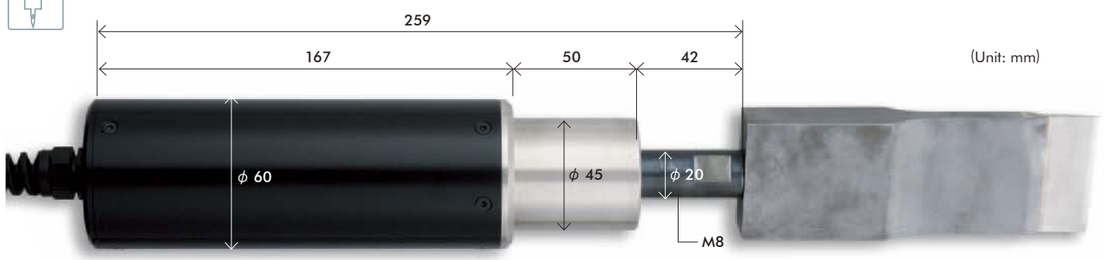


FB-0231-6L FB-4221

* Various options available for blade thickness and shape. Please contact us for details.

HG-110

When the blade is mounted on guillotine-type machines, it displays a remarkable performance with gate-cutting of difficult-to-cut fabricated products containing glass or carbon fiber.



Specification

Vibration element	PZT piezoelectric transducer
Housing material	Aluminum alloy
Outer dimensions	ϕ20/ϕ45/ϕ60 × 259 L (mm)
Weight	1400 g

Optional tools

FB-8112-50K

* The tool that best meets your application can be selected from our wide range in stock. Special tools can also be designed and manufactured.

SONOFILE SF-3441

Large-amplitude cutter with vibration frequency of 40 KHz.

Ultrasonic controller that enables signal communication for on/off, emergency stop, reset, and other features with the body of the machine such as automated machinery, industrial robots, plotters, etc.

Features

◎ High-power ultrasonic cutter with maximum amplitude of 60 micron and power output of 300W.
◎ Stable large amplitude in a high-frequency spectrum of 40 KHz.
◎ Automated machinery/plotter-mountable
◎ Overload relay

Oscillator SF-3441

Applicable materials

◎ A range of prepregs (boron, Kevlar, polyethylene fiber, etc.).
◎ Rubber (vulcanized latex, non-vulcanized latex, sheeting material, sealing material, and tube)
◎ Leather (natural and artificial).
◎ Thermoplastics (board, sheeting material, film, laminated material, and floor cover).
◎ Cloth, nonwoven fabric and paper (specially treated paper and coated paper).

Specification

Frequency	40KHz
Frequency adjustment	Auto-tracking type
Maximum power output	300 W
Power output adjustment	Infinitive adjustment
Power supply	AC200V 50/60Hz
Electricity consumption	500 VA
Outer dimension	230W x 330D x 150H (mm)
Weight	5.5 kg

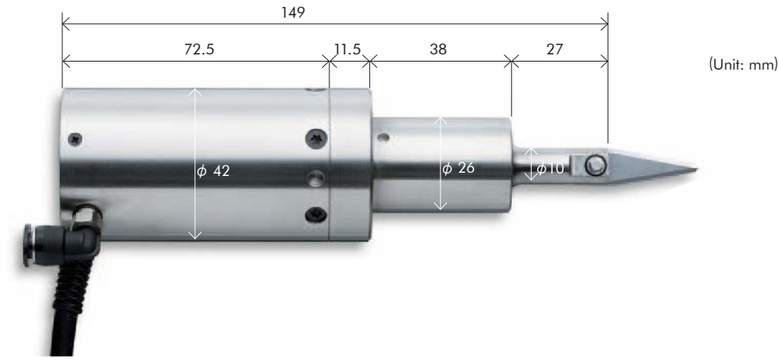
Machine/robot-mounted high-amplitude transducer.
SF-8541

Plotting cuttermounted-type large amplitude transducer
SF-8541R

ULTRASONIC HAND-TOOLS SONOTEC

SF-8541

Even more compact and powerful ultrasonic cutter than previous models with high frequency, realizing a sharper cut. User-friendly design by fully utilizing the robot's operation area. Forced cooling system with air inlet enables extended continuous use.



Specification

Vibration element	PZT piezoelectric transducer
Housing material	SUS 303
Outer dimension	ϕ10 / ϕ26/ ϕ42 × 149L (mm)
Weight	550g (Exclusive of the cord)
Blade thickness	0.6 mm

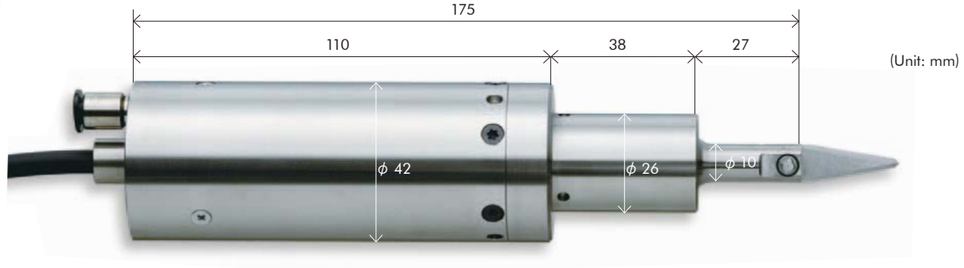
Standard tool

FB-3136-5H

* Various options available for blade thickness and shape. Please contact us for details.

SF-8541R

Equipped with the rotary-type head; not only the rotary connector for electric signal but also the air inlet rotates simultaneously. No matter how many times the blade rotates on a plotter, the electric cable and the air tube remain fixed.



Specification

Vibration element	PZT piezoelectric transducer
Housing material	SUS 303
Outer dimension	ϕ10 / ϕ26/ ϕ42 × 175L (mm)
Weight	660g (Exclusive of the cord)
Blade thickness	0.6 mm

Standard tool

FB-3136-5H

* Various options available for blade thickness and shape. Please contact us for details.

SONOFILE SF-3410

Automated machinery-mounted-type.
Reduced resistance for a quicker and cleaner cut!

High-power ultrasonic cutter with ultrasonic power output of 220W. Remarkable oscillator consistency. This cutter enables signals for on/off, emergency stop, reset, and other features with automated machinery. The tool's ultrasonic vibrations have a frequency of 22 kHz (22,000 vibrations per second), greatly reducing cutting resistance.
Select the one that best suits your application from the three combinations available for SF-3410.

Features

◎ Infinitive adjustment of power output between minimum and maximum.
◎ Amplitude control circuit ensures stable vibration amplitude at all times.
◎ External connection terminals are compatible with your automatic operation system/plotting cutter.
◎ Equipped with overload-control relay and protection circuit.

Oscillator SF-3410

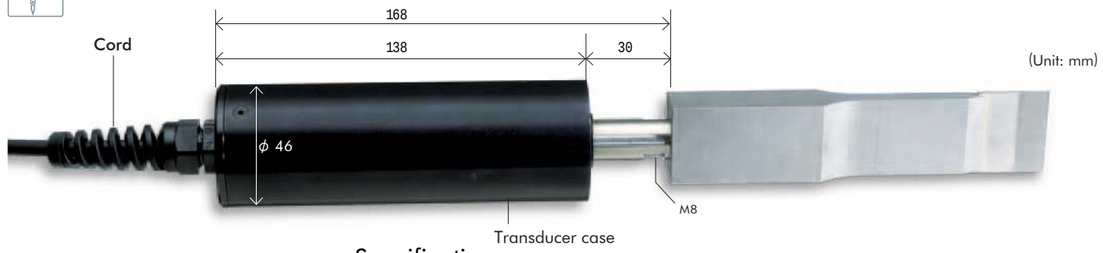
Specification

Frequency	22KHz
Frequency adjustment	Auto-tracking type
Maximum power output	220 W
Power output adjustment	Infinitive adjustment
Power supply	AC200V 50/60Hz 1φ
Electricity consumption	500 VA
Outer dimension	143W x 294D x 262H (mm) (Exclusive of the handgrip : 212H)
Weight	4.5 kg

* 100 V version can also be manufactured.
* The transducer is designed for use with the oscillator SF-3410. Select a transducer for your application and intended purpose.

SF-3110

The main body of the transducer consists of a cylindrical duralumin case that can be easily installed in automated machinery. Since a horn suitable for your application is selectable, a blade that best suits your work requirements can be designed. This cutter is ideal for up-and–down push cutting (guillotine system) and punching.



Applicable materials

◎ Bread, cakes, frozen food
◎ Rubber, plastic
◎ A range of materials, gate-cutting, punching, etc.

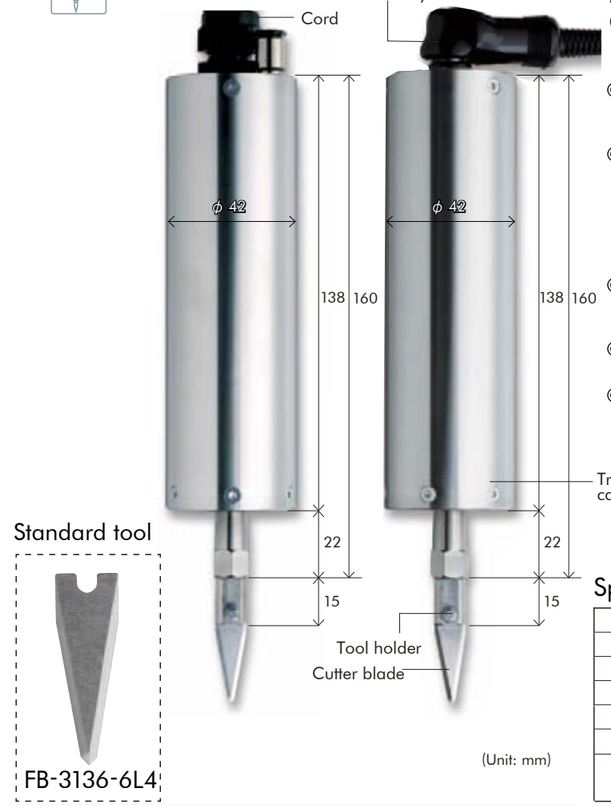
Specification

Vibration element	PZT piezoelectric transducer
Screw thread	M8
Cord length	4m (maximum extension is 10 m.)
Housing material	Aluminum alloy
Outer dimension	φ16 / φ46 × 168L (mm)
Weight	800g (Exclusive of the cord)

* The tool that best meets your application can be selected from our wide range in stock. Special tools can also be designed and manufactured.

SF-8500/SF-8500R

Large vibration amplitude of the blade with increased amplitude compared with the conventional model. Easy to install in automated machinery, industrial robots, and plotters with 42φ cylindrical shape. Ideal not only for sheets and cutout, but also for cutting and cutout of three-dimensional parts by mounting on industrial robots.



Features

◎ High-rigidity stainless steel SUS 303 is used for the housing material.
◎ High-durability robot cable 7.5 mm in diameter is used for the oscillator and transducer connection cable.

Applicable materials

◎ Composite materials include a range of prepregs, Kevlar and glass wool.
◎ Rubber, leather, and a range of thermoplastic materials.
◎ A range of car industry synthetic floor covers and sealing materials.

Standard tool

FB-3136-6L4

A range of tool holders is available for the vice-grip blade.

Specification

Vibration element	PZT piezoelectric transducer
Screw thread	M6
Cord length	4 m (maximum extension is 10 m.)
Housing material	SUS 303
Outer dimension	φ11 / φ42 × 160L (mm)
Weight	560g
Blade thickness	0.6mm (a blade suitable for your application can be manufactured from 0.4 mm and up in thickness).

* Specifications are subject to change without notice due to continual improvements. Please confirm when placing your order.

SONOFILE SF-3400

Clear cut with low processing pressure assists manual operations.

High-power ultrasonic cutter with ultrasonic power output of 220 W. The tool's ultrasonic vibrations at a frequency of 22 kHz (22,000 vibrations per second) greatly reduces cutting resistance. A variety of materials can be cut even more quickly and cleanly with lower processing pressure.
Ideal combinations for SF-3400 available for your application.

Features

◎ Infinitive adjustment of power output between minimum and maximum.
◎ Amplitude control circuit ensures stable vibration amplitude at all times.
◎ Equipped with overload-protection circuit.
◎ Equipping with air inlet enables forced cooling.

Oscillator SF-3400

Specification

Frequency	22KHz
Frequency adjustment	Auto-tracking type
Maximum power output	220 W
Power output adjustment	Infinitive adjustment
Power supply	AC200V 50/60Hz 1φ
Electricity consumption	500 VA
Outer dimension	143W x 294D x 262H (mm) (Exclusive of the handgrip : 212H)
Weight	4.5 kg

* Hand piece is used in combination with the oscillator SF-3400. Please select a hand piece for your application and intended purpose.

Manual-type hand piece large
SF-7400

Manual-type hand piece large amplitude type
SF-3140

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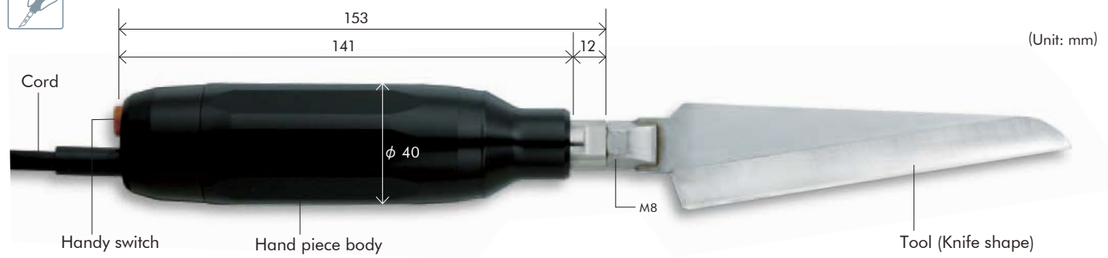
SF-7400

Manual transducer for use with large tools such as chisel and knife shape, assisting high-power manual operations including food processing, stripping exterior walls of buildings, and rust removal.



Applicable materials

◎ Food processing.
◎ Stripping exterior walls of buildings.
◎ Rust removal.

Specification

Vibration element	PZT piezoelectric transducer
Screw thread	M8
Cord length	4m (maximum extension is 10 m.)
Housing material	Polyoxymethylene (Duracon)
Outer dimension	φ22 / φ40 × 150L (mm)
Weight	305g (Exclusive of the cord)
Handy switch	Push button

SF-3140

Highly-versatile hand-tool compatible with small and large blades depending on each application.

Standard tool

Applicable materials

◎ Rubber (Vulcanized/Unvulcanized)
◎ Cloth/Fabric, Bonded textile
◎ Paper, Cardboard

Specification

Vibration element	PZT piezoelectric transducer
Screw thread	M6
Cord length	4m (maximum extension is 10 m.)
Housing material	Aluminum alloy
Outer dimension	φ12 / φ27 / φ40 × 245 (mm)
Weight	560g (Exclusive of the cord)
Blade thickness	0.6mm (a blade suitable for your application can be manufactured from 0.4 mm and up in thickness).

* Specifications are subject to change without notice due to continual improvements. Please confirm when placing your order.

SONOFILE SF-650

Manual-type hand piece
HP-650

Clear cut with low processing pressure assists manual operations.

High-frequency ultrasonic cutter with the tool vibration frequency of 40 kHz (40,000 vibrations per second) and an amplitude of 30 microns, maximizing the effect of ultrasonic vibrations that are high-speed and microscopic. A wide range of materials, including newly-developed composite materials, rubber, and leather, can be cut freely with low processing pressure, a sharp cutting edge, and little dust.

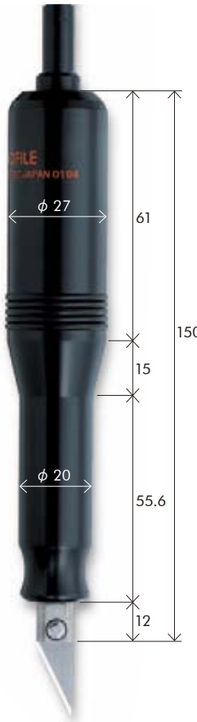
Features

- ◎ Stable vibrations with a maximum amplitude of 30 microns ensure remarkable cutting performance.
- ◎ Workability-oriented hand piece that is light and easy to hold (145 g).
- ◎ Simplified and secure installation of the tool with special square-headed screw and driver.

Oscillator SF-650

Hand piece HP-650

(Unit: mm)



Ultrasonic vibrations can be switched on/off by the foot switch.

Applicable materials

- ◎ A range of prepregs (boron, Kevlar, polyethylene fiber, etc.).
- ◎ Rubber (vulcanized latex, non-vulcanized latex, sheeting material, sealing material, and tube) and leather (natural and artificial).
- ◎ Thermoplastics (board, sheeting material, film, laminated material, and floor covers).
- ◎ Cloth, nonwoven fabric, and paper (specially treated paper and coated paper).

Standard tool

FB-3124 FB-3134

* Various options available for blade thickness and shape. Please contact us for details.

Specification: Oscillator

Frequency / adjustment	40KHz / Auto-tracking type
Max. power output / adjustment	45W / Infinitive adjustment
Power supply	AC100V 50/60Hz
Electricity consumption	135VA
Outer dimension	approx. 200W x 220D x 118H (mm)
Weight	approx. 3.0 kg

* 200 V version can also be manufactured.

Specification: Hand piece HP-650

Vibration element	PZT piezoelectric transducer
Code length	0.6-meter curled code, extended to 2.5 m
Housing material	Resin (polyoxymethylene)
Outer dimension	ϕ12/ϕ20/ϕ27 × 150 L (mm)
Weight	approx. 145 g
Blade thickness	Sole use for 0.4 mm (can be manufactured for 0.5 mm and 0.6 mm use)

* Specifications are subject to change without notice due to continual improvements.Please confirm when placing your order.

SONOFILE SF-651

Machine/robot-mounted-type transducer
HP-651

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Allows for extended continuous use through our unique power circuit and air cooling system!

High-frequency ultrasonic cutter with vibration frequency of 40 kHz (40,000 vibrations per second) and an amplitude of 30 microns, maximizing the effect of ultrasonic vibrations that are high-speed and microscopic. A wide range of materials, including newly-developed composite materials, rubber, and leather, can be cut freely with low processing pressure, a sharp cutting edge, and little dust. Our unique power-control circuit and forced air inlet prevent the transducer from overheating, even at high amplitude, allowing for extended continuous use. (Please contact us in case it is used for long hours without air cooling.)

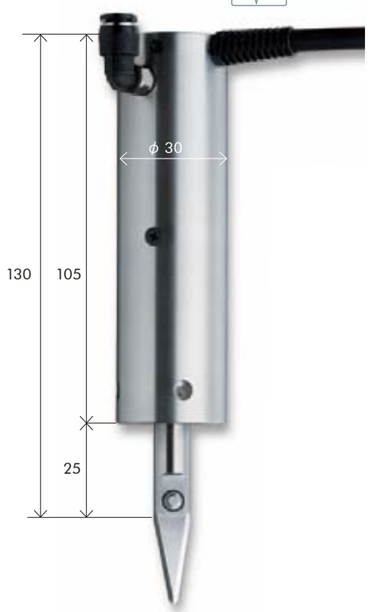
Features

- ◎ Stable vibrations with a maximum amplitude of 30 microns ensure remarkable cutting performance.
- ◎ Our unique development prevents the transducer from overheating, allowing for extended and continuous use.
- ◎ Simplified and secure installation of the tool with special square-headed screw and driver.

Oscillator SF-651

Hand piece HP-651

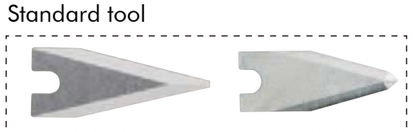
(Unit: mm)



Applicable materials

- ◎ A range of prepregs (boron, Kevlar, polyethylene fiber, etc.).
- ◎ Rubber (vulcanized latex, non-vulcanized latex, sheeting material, sealing material, and tube) and leather (natural and artificial).
- ◎ Thermoplastics (board, sheeting material, film, laminated material, and floor covers).
- ◎ Cloth, nonwoven fabric, and paper (specially treated paper and coated paper).

Standard tool



FB-3136-5 FB-3136

* Various options available for blade thickness and shape. Please contact us for details.

Specification: Oscillator

Frequency / adjustment	40KHz / Auto-tracking type
Max. power output / adjustment	45W / Infinitive adjustment
Power supply	AC100V 50/60Hz
Electricity consumption	135VA
Outer dimension	approx. 200W x 220D x 118H (mm)
Weight	approx. 3.0 kg

* 200 V version can also be manufactured.

Specification: Hand piece HP-650

Vibration element	PZT piezoelectric transducer
Code length	4 m
Housing material	SUS 303
Outer dimension	ϕ12/ϕ30 × 130 L (mm)
Weight	approx. 270 g
Blade thickness	0.6 mm

* Specifications are subject to change without notice due to continual improvements.Please confirm when placing your order.

SONOFILE SF-60

Ideal for fine work with a delicate touch!

Ultrasonic power output of 45 W. Ideal for cutting, cutting-out, and window work of thin sheet materials as well as gate-cutting and deburring of small plastic parts. Just a light touch is all it takes to polish the work surface, and very little hand vibration.

Features

◎ Desktop-type ultrasonic cutter that is compact and lightweight.

◎ Clean work surface is achieved with a light touch and little hand.

Oscillator SF-60

Tool holders for vice-gripping type available for off-the-shelf and made-to-order blades.

Specification

Frequency	25kHz
Frequency adjustment	Auto-tracking type
Maximum Power output	45 W
Power output adjustment	Infinitive adjustment
Power supply	AC100V 50/60Hz 1φ
Electricity consumption	135 VA
Outer dimension	145W x 180D x 125H (mm)
Weight	1.9 kg

* 200 V version can also be manufactured.

Applicable materials

◎ Thin sheet material (specially-treated paper, cloth, etc.)

◎ Rubber sheets.

◎ Plastic sheets.

SF-9400

Compact and lightweight, easy to hold and user-friendly, making it suitable for light labor.

Ultrasonic vibrations can be switched on/off by the foot switch.

Specification

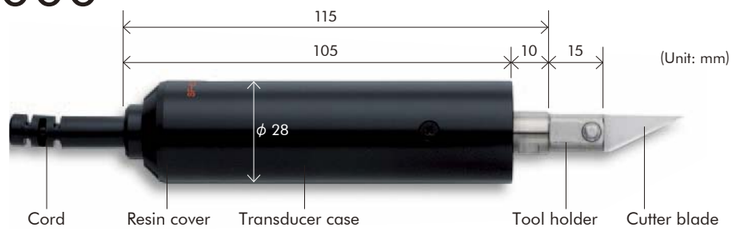
Vibration element	PZT piezoelectric transducer
Screw thread	M6
Cord length	0.6-meter curled cord, extended to 2.5m
Housing material	Polyoxymethylene (Duracon)
Outer dimension	ϕ11.5 / ϕ28 × 128L (mm)
Weight	130g (Exclusive of the cord & tool)
Blade thickness	0.4 mm

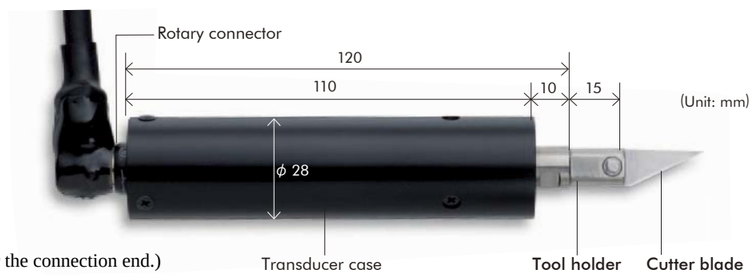
Standard tool

* Various options available for blade thickness and shape. Please contact us for details.

SF-6100/SF-6000

When the oscillator for SF-60 is combined with the machine-mounted transducer SF-6100, the cutting unit can be used on the automatic cutting machine that cuts and processes sheets and films. Alternatively, when used with the transducer SF-6000 equipped with a rotary connector, it becomes a cutting unit mountable on the plotting cutter.





Specification (Interchangeable except for the connection end.)

Vibration element	PZT piezoelectric transducer
Screw thread	M6
Cord length	4 m (maximum extension is 10 m)
Housing material	Polyoxymethylene (Duracon)
Outer dimension	As shown in the drawing
Weight	150g (Exclusive of the cord)
Blade thickness	0.4 mm

* Specifications are subject to change without notice due to continual improvements. Please confirm when placing your order.

ULTRASONIC HAND-TOOLS SONOTEC

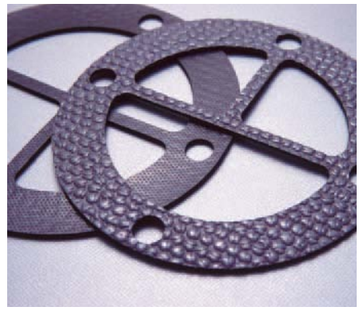
Specification

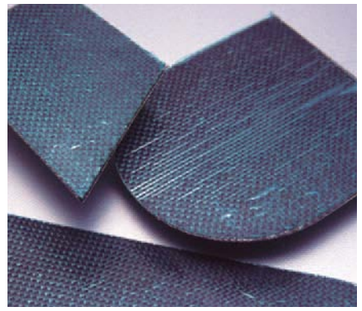
Oscillator	Oscillator	SH-3510		SF-3441		SF-3410			SF-3400		SF-650	SF-651	SF-60		
	Transducer	SH-8700	SG-110	SF-8541	SF-8541R	SF-8500	SF-8500R	SF-3110	SF-7400	SF-3140	HP-650	HP-651	SF-9400	SF-6100	SF-6000
	Frequency	30kHz		40kHz		22kHz			22kHz		40kHz		25kHz		
	Maximum output power	500W		300W		220W			220W		45W		45W		
	Power supply voltage *1	200V		200V		200V			100V		100V		100V		
Transducer	Maximum amplitude *2	80 μ	-	60 μ		60 μ		-	-	60 μ	30 μ		10 μ		
	Automated machinery-mounted-type	O	O	O	O	O	O	O				O		O	O
	Manual-operation type								O	O	O		O		
	Rotary connector	(O)*3			O		O								O
	Forced air cooling (for extended continuous use)	O		O	O	O	O			O		O			
	Vice-gripping blade	O		O	O	O	O			O	O	O	O	O	O
	Carbide blade	O	O			O	O			O					
	Exclusive tool *4		O					O	O						
	Robot code	O	O	O	O	O	O	O	O	O		△*5			O
	Curled code										O		O		
	Straight code													O	
	Standard code length *6	4m		4m		4m			4m		2m	4m	2.5m	4m	
	Weight	1200g	1400g	550g	660g	560g	560g	800g	305g	560g	145g	270g	130g	150g	150g
External switch	External connection	O		O		O						O			
	DIN connector													O	O
	Foot switch								Hand switch	O	O		O		
Applicable material *7	Carbon	O													
	Range of prepregs	O		△		O				O	△				
	Composite materials	O		O		O				O	△				
	Rubber	O	O	O		O		O		O	O				
	Thermoplastics	O	O	△		O		O		O	△				
	Cloth, paper, and corrugated cardboard	O		O		O			△	O	O		O		
	Sponge and foaming materials	O		O		△				△	O				
	Exterior walls of buildings		O					O	O						
	Foods (frozen foods, cakes, and breads)	O	O	△		△		O	O	△	△				
	Sheeting materials	O	O	O		O		△		O	O		O		

*1 Power supply voltage can be changed. *2 The maximum amplitude changes according to the tool to be used. *3 Rotary type can also be manufactured. *4 It is a built-to-order item (variable price). *5 The code near the transducer is a straight code, and it changes to a robot code afterwards. *6 The robot code can be extended to 10 m. Please specify the transducer's code length when placing your order. *7 Please consider the applicable materials as standards. Since the ideal model may vary depending on the shape and other conditions, please confirm the performance by a test cut or using a demonstration machine.

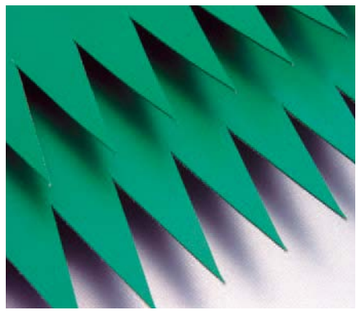
Recommendation of our Test Cut

The model and blade shapes you should choose vary depending on your material, its thickness, and the application.
We will provide a free test cut if you send us a sample piece. You will be able to see the actual result of the machining performance. In case you have your own special blade manufactured, however, the extra cost will be applied.





Carbon (CFRP)



Examples of materials applicable to SONOFILE®

NR Sponge

Corrugated elbow

Wide-mouthed bottles