

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	Infinite adjustment
Power supply	AC200V 50/60Hz
Electricity consumption	500 VA
Outer dimension	230W x 330D x 150H (mm)
Weight	5.5 kg

for SF-3441

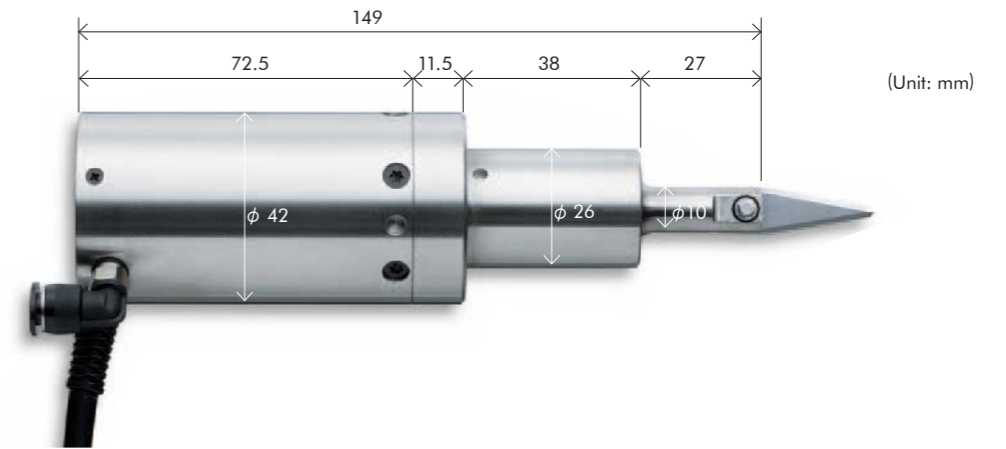
Machine/robot-mounted
high-amplitude transducer.
SF-8541

Plotting cuttermounted-type
large amplitude transducer
SF-8541R

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	φ 10 / φ 26 / φ 42 × 149L (mm)
Weight	550g (Exclusive of the cord)
Blade thickness	0.6 mm

Standard tool

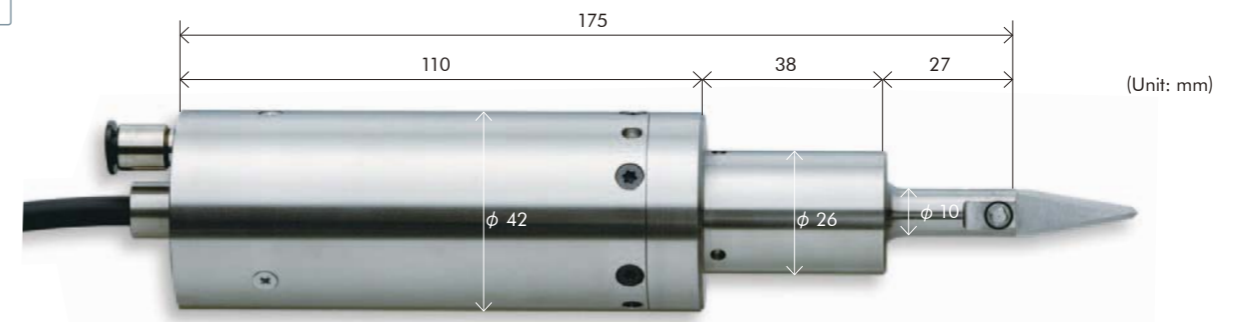


* Various options available for blade thickness and shape. Please contact us for details.

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	φ 10 / φ 26 / φ 42 × 175L (mm)
Weight	660g (Exclusive of the cord)
Blade thickness	0.6 mm

Standard tool



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

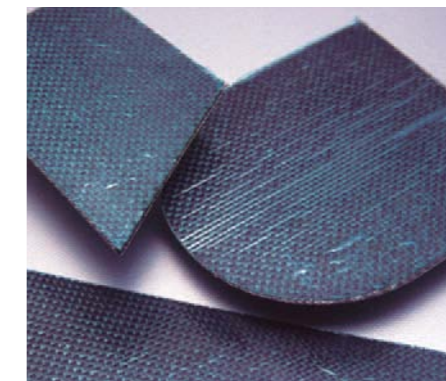
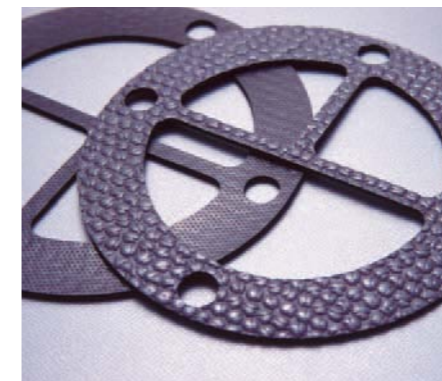
Specification

	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
Oscillator	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	○	○	○	○	○	○	○				○		○	○
	Manual-operation type								○	○	○		○		
	Rotary connector	(○) ^{*3}			○		○								○
	Forced air cooling (for extended continuous use)	○		○	○	○	○			○		○			
	Vice-gripping blade	○		○	○	○	○			○	○	○	○	○	○
	Carbide blade	○	○			○	○			○					
	Exclusive tool ^{*4}		○					○	○						
	Robot code	○	○	○	○	○	○	○	○	○		△ ^{*5}			○
	Curled code										○		○		
	Straight code													○	
	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	○		○		○						○			
	DIN connector													○	○
	Foot switch								Hand switch	○	○		○		
Applicable material ^{*7}	Carbon	○													
	Range of prepregs	○		△		○				○	△				
	Composite materials	○		○		○				○	△				
	Rubber	○	○	○		○	○	○		○	○				
	Thermoplastics	○	○	△		○	○			○	△				
	Cloth, paper, and corrugated cardboard	○		○		○			△	○	○			○	
	Sponge and foaming materials	○		○		△				△	○				
	Exterior walls of buildings		○					○	○						
	Foods (frozen foods, cakes, and breads)	○	○	△		△		○	○	△	△				
Sheeting materials	○	○	○		○		△		○	○				○	

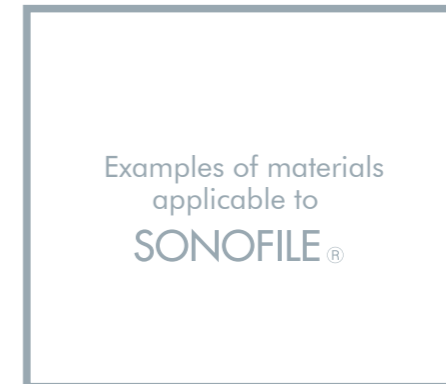
*1 Power supply voltage can be changed. *2 The maximum amplitude changes according to the tool to be used. *3 Rotary type can also be manufactured. *4 It is a built-to-order item (variable price). *5 The code near the transducer is a straight code, and it changes to a robot code afterwards. *6 The robot 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)



NR Sponge

Corrugated elbow

Wide-mouthed bottles