Co.019

June 2016

Company

Miscellaneous Manufacturing Industries

Tosei EB Tohoku Co., Ltd.

Basic Information

Representative	Kunika Ueno, President and CEO		
Address	1-26 Machiikedai, Koriyama City, Fukushima 963-0215		
Capital	¥21M	**Employees**	23
Telephone	+81-24-963-2411	**Fax**	+81-24-963-0455
Website	http://www.ebtohoku.co.jp		
Affiliated Companies	TOSEI ELECTROBEAM COMPANY LIMITED (Parent company)		
Major Clients	Aerospace related companies Automobile related companies Industrial machine related companies		
Contact Person	Yatabe, Subsection Chief of Sales Division, Business Administration Department E-mail : yatabe246@tosei.co.jp		

Areas of Business

Beam processing(EB and LB) by Job shop (welding, micro-cutting, boring, ablating, marking, etc.), sales of laser equipment, engineering

Major Products / Technologies / Services

Aviation instrument and space appliance related parts, automobile related parts, semiconductor equipment related parts, industrial instrument related equipment, industrial machine related parts

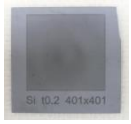
Business Conduct in the Field of Renewable Energy

Introduction

Tosei EB Tohoku is a reliable processing company of welding and micro-cutting.

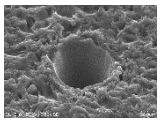
We can manage a wide range of processing from manufacturing a trial product to mass production.

Material: Silicon
Thickness: 200 μm

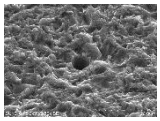


Diameter of incident side: φ18 μm
Diameter of emitting side: φ6 μm
Hole pitch: 50 μm
Number of holes: Approx. 160,000

Incident Side



Emitting Side



Areas of Interest

■	Photovoltaic		Smart Community
	Wind Power		Ground-Source Heat
	Hydro Power	■	Storage Batteries
	Biomass	■	Hydrogen Energy
	Others （ ）		

Track Record

Research of silicon wear processing technology for PV power generation.

Suggestions & Proposals

Material is single crystal silicon, 0.2mm thickness with texture.

① Punch holes by laser processing:
Punch holes to single crystal silicon by laser processing. Both a front surface of laser incident and a back surface of laser emitting are processed well.

② Removable processing of passivation film:
Remove passivation film (surface protection for silicon wear) by laser processing.
By this method, a delicate surface structure is kept unbroken and passivation film can be selectively removed.

③ Insulation processing:
Apply micro-fabrication to silicon wear with texture structure to process a ditch by laser processing. A ditch keeps enough width and depth for insulation, not damaging a silicon wear.