



We serve our customers, our colleagues and our communities by integrating sustainability into our work every day. We believe it's not just the right thing to do, but it's also good business.

# LASER MATTERS

CUTTING EDGE LASER PROCESSING TECHNOLOGIES



### Beyond Just Sales

We at Scantech Laser believe that our success is contingent on our capacity to provide superior value to our customers, despite our decades of experience and global recognition for our products and services. We are able to fully comprehend the requirements of our customers and strive to meet or exceed their expectations by developing applications and automation at our facility.

We have a long tradition of technological leadership and ground-breaking innovations. The development of the laser equipment industry was aided by our innovative thinking, which led to the introduction of the first indigenous laser head in 1991. As a result, we are regarded as industry leaders and take great pride in providing outstanding customer service to guarantee the long-lasting, dependable performance of our equipment.

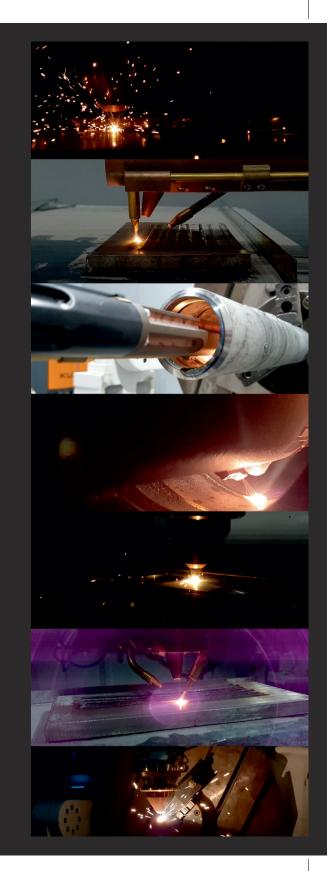
We at Scantech Laser are aware that we must continuously conduct research and development in order to effectively serve our customers. Our "Innovation Circle", a group of 8 individuals which drives technical developments ensures the evolution of technology.

In addition, we are dedicated to enhancing our business, our industry, and the places where we live and work. We strive to improve the world through volunteer opportunities, sustainable business practices, and financial support for educational institutions.

Our promise is straightforward, regardless of whether you are a customer, an investor, an operator, a supplier, an employee, or a member of one of our communities. You can rely on your partner, Scantech Laser. We are looking forward to working together with you.

Glopamani

**G V Ramani** Chairman & MD



### **Overview** - Company

### About Us

Scantech is worldwide known for its technical innovations in various fields of custom laser applications. We stand apart from other laser machine manufacturing companies for our customer-centric approach, where we make machine are tailor made as per client's specification for quality production & cost effectiveness. Apart from Custom Laser Machine Manufacturing we also offer wide range of machines like laser marking machines, laser welding machine, laser-drilling machine, and laser cutting machine specific to client requirements.

### Our Vision

Scantech to be amongst the top 10 global companies, as the preferred laser solution provider for its customer worldwide.

### Our Mission

Scantech's mission is to be the leading supplier of Laser Solutions worldwide through innovation & enhancement of customer productivity with systems & service solutions.

### We Believe

We believe & understand that if technology takes effort & consumes time, its value is significantly reduced. Laser to us is not what you see, but what you don't see. Our solutions are subtle yet powerful, making a statement with its simplicity & comfort. Clients are often surprised by what is possible today. We realize that conventional machines can sometimes detract from your production & so we strive to blend technology in your production such that the integrity of your vision is maintained while delivering optimal performance. We strongly believe in offering the best solutions, ethical guidance, professional training & timely hassle-free service.

### Our Services

We realize that since reporting, technical diagnostics & written procedures, servicing equipment may be very time consuming & could leave your equipment out of action for a number of weeks. Having identified these problems & understood the service demands of our product profile, we have built our support systems with a highly qualified team, specifically trained to help our customers overcome these problems almost instantaneously ensuring the maximum performance throughout the life of these equipment's. We sincerely believe that selling a product is just the beginning of a long-term relation with our Client & optimum service is the only key to success in our industry.

### Material Processing Lab

Our state-of-the-art Material Processing Lab provides customers with a fully immerse space to introduce clients to laser processes & demonstrate the latest technology in a warmly inviting, functioning high-tech application environment.

### Why Us?

#### Experience

We have an experience of more than 200,000 hrs. in laser processing with more than +500 applications.

#### CSR

We support our communities through many environmental & amp; social initiatives. We support education to poor & amp; deprived section of the society, thus ensuring their growth socially & amp; economically in the society.

### How We Work?

#### Sampling

We start right off the bat with sample testing, which helps our customer to comprehend the results from the process. Sample is prepared at our application lab in various parameters with different lasers to look over.

#### Build

Drawings are quickly released for production with each stage inspection for quality. Post QC, it is than assembled at the assembly area with most care. Laser is the last assembled part of the equipment.

Gift

Packaging

Collectible

Plastic

Sheet Metal

Measuring Instrument

### Industries We Serve

Aerospace Glass Paper Steel Defense Medical

#### Expertise

We hold expertise in Industrial automation which is simpler to use & amp; more productive with low cost solutions.

#### **Application Centre**

Our application processing lab is equipped with all types of lasers & amp; tools to process and make the samples as per need to ensure correct purchase of equipment.

#### Concept

On endorsement of samples, we start with various idea illustrations that helps to understand the job processing easily. Concept inputs can always be customized to particular need.

#### Test

Each component is checked and tested separately after assembly finishes. An engineer then check the electrical connections, laser alignment, optics and starts the testing of equipment for ceaselessly 48 hours.

> Mining Semiconductor Automotive Machine Tools Photo-voltaic Tobacco

#### Team

Our team has engineers from various fields like Laser PhD, Optical, Mechanical, Electrical, Electronics, Software, and Physicist.

#### Suppliers

Our suppliers are strategic partners and we foster ever-closer working relationships with them while staying true to our values which helps us understand new technology as well as to meet targets.

#### Design

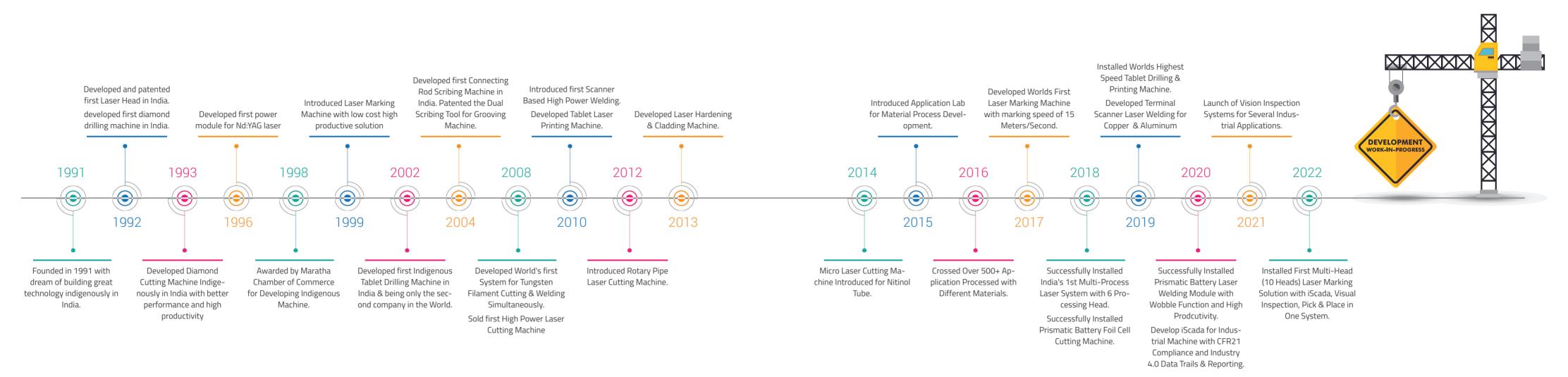
Once the concept is clear and wide, Final outlining of the equipment starts, where profoundly qualified specialists discuss about the design strategy, ergonomics and user friendly interface of the equipment.

#### Prove

Our material preparing engineers begin trials on the sample provided by customer and fine tune the parameters. FAT is led in presence of customer to demonstrate each and every challenge given.

Repair Shop Apparel Leather Pharmaceutical Textile Agriculture Diamond & Jewelry Petroleum & Chemicals Sign-age Electronics

### Progress History



### **Diversed** Solutions

#### Description

Scantech Laser combines market requirement and technology and offers an engineered program of all-round smart solutions to processing and welding applications covering an entire gamut of industrial welding like battery terminal welding, carrier welding to fine jewelery welding.







### Laser Marking

#### Description

With our diverse set of industrial laser marking machines (Multi Position Large Size Laser Marking Machines to Portable Fiber Laser Marking Machines) we can provide the best-fit solution for laser marking, engraving or deep engraving depending on the application, material, composition and surface.

#### Available Compliance









The ablation process requires material to be removed from the surface creating a depression. The laser beam penetrates the material and marked area creating a visual depth. Since the material is heated and reacts with air a slight discoloration at the engraved areas is visible. This procedure is used to make dies, stamp dies, metal monogram, coin minting die, or for texturing purpose. It removes the material in multiple passes to maintain sharpness.

#### Melting Process

Laser melting or foaming process is mainly used for creating optical effects where the processed material appears lighter than the surrounding component. Laser is directed at dark plastics to create gas bubbles. These bubbles then are cooled and embedded in the material hence raised from the actual surface level which reflect light differently then the surrounding. This process is used for Animal tag marking, ID card marking or high precision texturing.



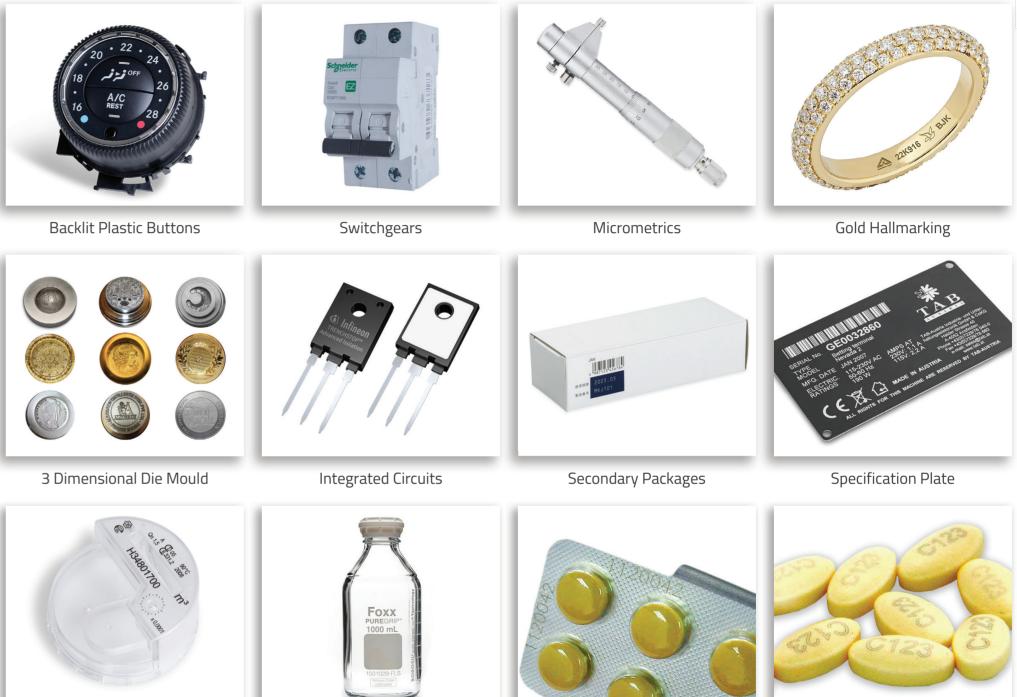
RESONATE X4

Annealing is a process of creating an oxidized layer on ferrous metals through localized heating. The material surface remains even during the process as no layer is added or removed from the surface. The color of the oxidized surface depends on temperature at which the layers are heated. This technique produces high contrast and dark marking output. Specifically material like stainless steel, chrome & titanium are highly used for this technique.



Coloring Process

Localized heating of materials slowly which creates annealing effect. Different colors are produced using thermo chemical reaction by heating with different temperature, thus produces colors. The surface is reacts to material properties and oxidize. Color marking is gaining interest in the industry as it adds visual appeal to the end product. In case of Non-Metals it uses the base material properties like TiO₂ and creates a photochemical reaction which results in color.



Plastic Components

**Glass Vials** 

Blister



Tablets & Capsules

### Laser Cutting

#### Description

Scantech Laser cutters assist in taking your production to the next level. We use industrial grade components that result in faster movement, better precision and increased laser power. Thus, delivering precision levels and edge quality that are by far better than traditional cutting methods.

#### Available Compliance





#### **Oxyfuel Cutting**

Oxyfuel Cutting is a process that uses oxygen and fuel gases, usually acetylene and propane, to cut metals. The process can be used for a variety of different metals, including carbon steels, stainless steels, aluminum, brass, and copper. Oxyfuel Cutting has many benefits over other cutting processes like Plasma Cutting. For example, oxyfuel cutting produces a cleaner cut with less distortion than plasma cutting. Additionally, oxyfuel cutting is great for longer cuts as the heat from the flame does not dissipate.

#### Nitrofuel Cutting

Nitrofuel cutting is a process that uses a fuel containing nitrogen and hydrogen to cut through materials. The nitrogen and hydrogen form a gas that is high in heat and low in density. This causes the gas to expand and escape from the nozzle of the torch, providing the energy needed to cut through the material. The key advantage of nitrofuel cutting is that it can cut through much tougher materials than traditional oxy-fuel cutting.

#### Sublimation Cutting

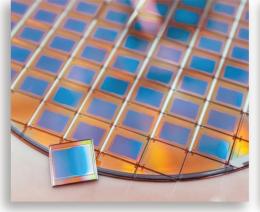
Sublimation cutting is a relatively new technology used in the apparel industry. It involves the use of heat and pressure to cut fabric, rather than using a blade. This results in a cleaner, more precise cut and eliminates the need for excessive finishing. The process is also environmentally friendly, as no water or energy is wasted in the cutting process. Sublimation cutting is still in its early stages of development, but it is quickly gaining popularity among apparel manufacturers due to its many benefits.

#### **Kiss Cutting**

The kiss cut is a popular die-cutting technique that gives a design a clean, finished look. When choosing the kiss cut for your project, it is important to consider the blade width and how deep you want the cut to go. The kiss cut creates a raised edge around the perimeter of the shape, which can be helpful when mounting the shape to a project or when stacking multiple shapes together.



Cathode Anode Foils



Silicon Wafers



Quartz Glass



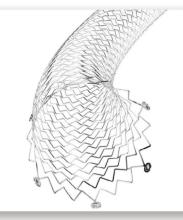
Ceramic Substrate



Paper



Automotive Plastic Trim

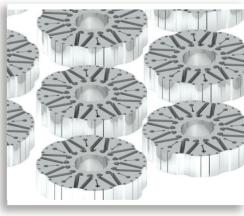


Medical Stent



Metal Tube







Car Body

Copper Terminals

Rotor & Stator

Flexible PCB

### **Laser** Welding

#### Description

Scantech Laser combines market requirement and technology and offers an engineered program of all-round smart solutions to processing and welding applications covering an entire gamut of industrial welding like battery terminal welding, carrier welding to fine jewelery welding.

#### Available Compliance



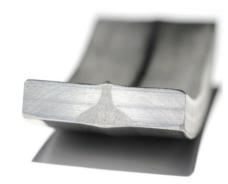


Seam Welding

Laser seam welding is a technique that uses a focused beam of laser light to melt pieces of metal together at pressures and temperatures that are lower than required for other welding processes. It allows for strong, durable weld joints with good corrosion resistance. This technique is also known as Laser-Gap welding or Laser Beam welding. The process is simple and fast, which makes it excellent for aerospace applications and other demanding applications.



Laser scanner welding is an important technology used in many industrial and manufacturing applications. The technology has several advantages over other welding methods, including high precision and speed, accuracy, and low thermal distortion. Additionally, laser scanner welding can be used to weld a wide range of materials, including metals, plastics, and composites. In recent years, the use of laser scanner welding has grown rapidly due to its many advantages and the continuing growth of the manufacturing sector.



**Penetration Welding** 

Deep penetration welding is a specialized type of welding that is used to join two pieces of metal together. By using a powerful welding torch, the welder can heat the metal to its melting point and then quickly weld it together. This results in a weld that is incredibly strong and can withstand a great deal of stress. Deep penetration welding is often used in heavy industrial applications where strength and durability are critical.

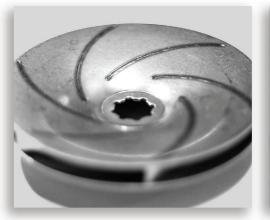


#### Laser Soldering

Laser soldering is a process that uses a focused laser beam to join two pieces of metal. The heat from the laser melts the surface of the metals, forming a bond between them. Laser soldering has many advantages over traditional methods of soldering, such as iron based solder. One key advantage is that it creates less heat damage to components around the area being soldered. This can be advantageous in applications where thermal distortion would cause problems.



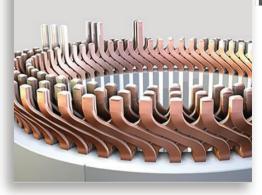
Automotive Heat Exchanger



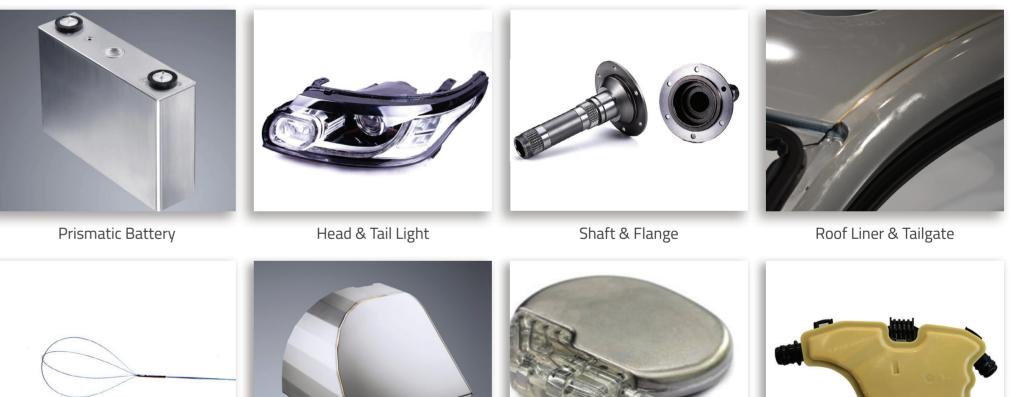
Impeller



Battery Tab



Copper Hairpin



Nitinol Basket

Stainless Steel Sheet Part

Pacemaker



Plastic Part Seal

12

### Laser Cladding

#### Description

Scantech's ProClad laser cladding systems are perfectly suited for both new component or part manufacturing and piece repair. Pro Clad assures perfect metallurgical bonded and dense coatings. With Scantech's expertise we provide your business full support with the laser cladding application development, training and production ramp-up services.

#### Available Compliance





Bearing Shaft



Fin Screw



Shaft



Part Building



Cam Shaft



Seat Ring



Pistons



ID Shaft

### Laser Cleaning

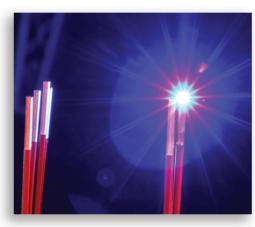
#### Description

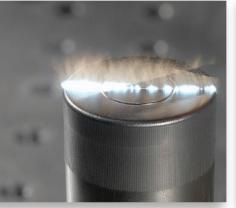
With ProClean, Scantech offers you the best laser cleaning solution in the industry. Constructed using a modular design to enable optimal configuration and provide the right size laser for each application from 12W to 1kW, Pro Clean meets customers' specific requirement in all ranges from heavy-duty, production intensive applications to regular processes.

Rust Removal Cleaning High energy pulsed laser focusing on the surface of object to simulate plasma, continuous irradiation of high-energy plasma instantaneous formation and expansion, resulting in a series of tiny explosions, formatting plasma blasting, finally achieve the relatively smooth corrosive layer of boject surface to physical blasting burst, and move through the high speed laser spot to form a plume that will clean the debris to complete the cleaning. Mainly used in metal rust.

#### Available Compliance







Hairpin Enamel





Blackodising



Terminal







Coating



Degreasing



Derust

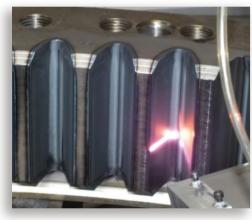
### **Laser** Hardening

#### Description

Laser hardening is used to produce a hard and wear resistant structure of the outer layer. It can be used for all materials which are subject to flame hardening and induction hardening. Scantech's ProCarbo provide an excellent solution to process irregular 3-D work articles and reduce refinishing processes.

#### Available Compliance

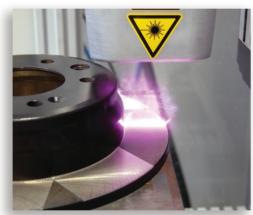




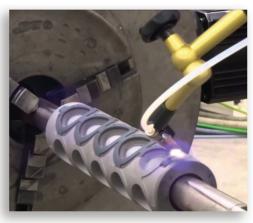
Gear Teeth



Track



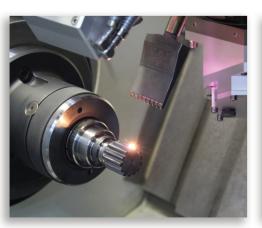
Seat Ring



Drum Edge



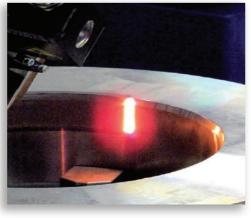
Bevel Gear



Geared Shaft



Bearing Shaft



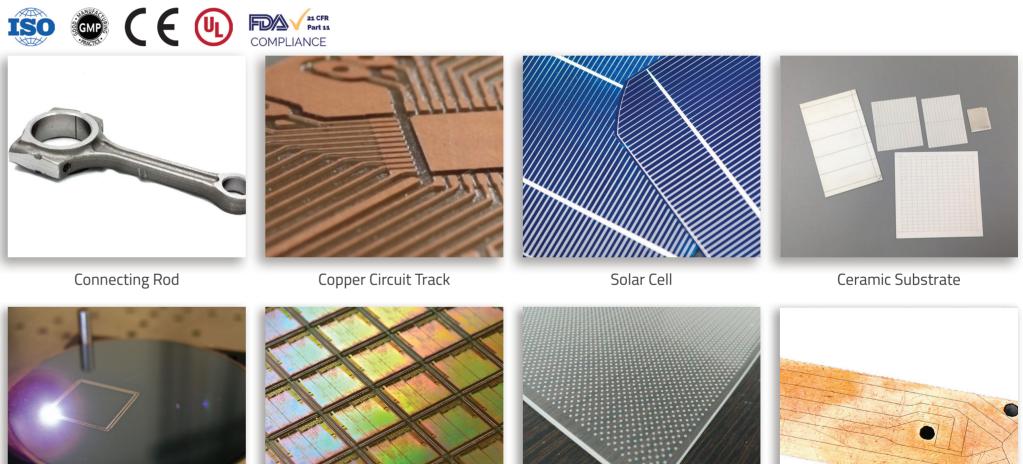
ID Shaft

### **Laser** Scribing

#### Description

Scantech's laser scribing solution provides the manufacturers of semiconductors with an efficient alternative - laser-based Fiber Scribing Machine to mechanical processing. Our lasers offer high quality Ytterbium Fiber Laser Scribing system that specializes in scribing ceramic, silicon wafers and solar cells.

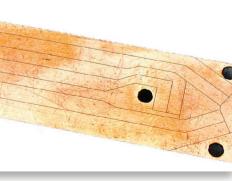
#### Available Compliance



Silicon Wafer

Semiconductor

LED Guide Plate



Flexible PCB

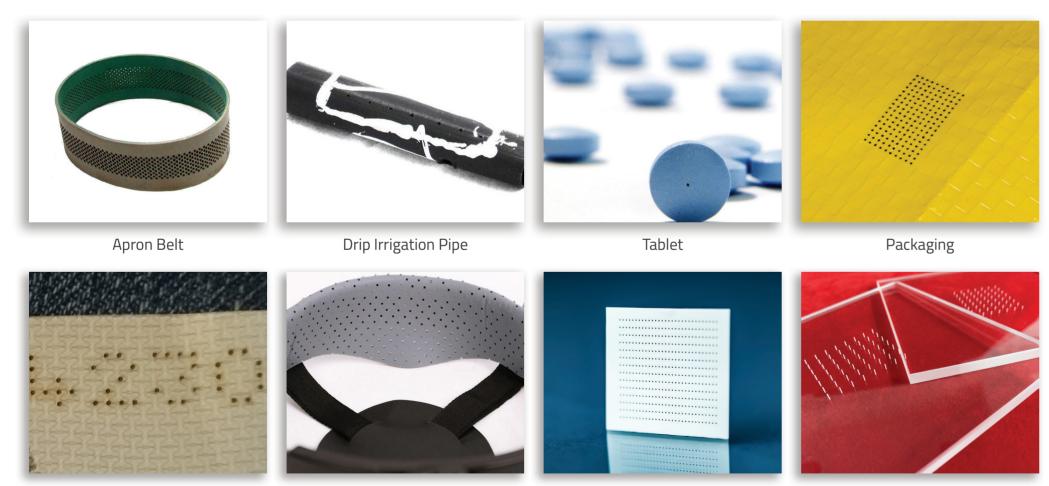
### Laser Drilling

#### Description

Scantech offers industry's best laser drilling machine - ProDrill to meet all your laser drilling needs from machining very small and precisely tapered shapes to the largest of holes. It works on a large number of solid materials like hardened steel, hard metal, ceramics and diamond by choosing the appropriate wavelength and power density of the laser beam.

#### Available Compliance





Passport

Leather

Ceramic

Quartz



### Our Customers

PHILIPS	BOSCH	SIEMENS	ΤΛΤΛ	Raymond
Mahindra	KALYANI	Mubea		SUZLON
	Goorej	VIRAJ	SECO	SANDVIK
Rane	LMW		REYDEL	BAJAJ MOTORS
STANADYNE	JEWELEX	Sanistål <b>S</b>	TOME FETEIRA PORTUGAL	Aquel



\_\_\_\_

### Office

On behalf of our team, we welcome you to our office. We are pleased that you have shown interest in us to care for your needs and we look forward to your visit. We want you to know that we are committed to provide you with the highest quality of service in the most gentle, efficient, and enthusiastic manner possible. We pride ourselves on making sample trials a pleasant experience for you, while providing you with the best solutions.

Should you have any questions about our practice, services, or policies please do not hesitate to contact our office or visit our website at www.scantechlaser.com. Our other product information are available on our website. We look forward to your visit.



### SCANTECH LASER

A 517 TTC Industrial Area, MIDC Mahape, Ghansoli, Mumbai - 400 710, MH, INDIA

info@scantechlaser.com www.scantechlaser.com

#### SALES

Tel.: +91 932 191 7007 bdm@scantechlaser.com







Make in India

22

Customers

## SCANTECH LASER

