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“Elevating Precision in Sheet Metal Manufacturing” for Ferrous and Non-Ferrous Metal

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- Sheet Metal Blanking & Stamping
- Photo Chemical Machining
- Wire Cutting
- Laser Cutting
- CNC & VMC Milling

Introducing **KRISTEEL-SHINWA INDUSTRIES LIMITED: *Elevating Precision in Sheet Metal Manufacturing***

Welcome to a world where innovation meets precision in sheet metal manufacturing. At Kristeel, we are your trusted partner in crafting intricate and impeccable sheet metal parts that drive industries forward. With a relentless commitment to quality and cutting-edge technology, we transform raw materials into works of art, delivering solutions that redefine excellence.

The processes at Kristeel are statistically controlled with a sharp focus on process capability index at every stage of manufacturing. Our process reliability is supplemented by the state of art manufacturing set-up and the class 10000 Clean Room Dust Free environment.

Unveiling Our Manufacturing Expertise: Driven by a passion for perfection, our journey in the world of sheet metal manufacturing has been marked by innovation, collaboration, and a dedication towards mastering the art Sheet Metal. KRISTEEL offers an array of meticulously engineered parts manufactured through various techniques to offer solutions as per the design of the product and utilization of the parts at customer end.

Various Processes used in Manufacturing Sheet Metal

1. Photo Chemical Machining: Kristeel introduced this technology in India, we have an experience of 50+ years in evolving the Photo Chemical Machining process with inputs from experts in USA, UK, Japan, India and others. A process that brings your designs to life with intricate precision. Our state-of-the-art equipment imported from USA, UK, Japan, Germany, etc. ensures accurate reproductions of your most intricate patterns. Advantages of this process are burr free parts, low cost of tooling, speed of delivery, unlimited design flexibility, integrity of Metal Properties, suitable for proto as well as high volume production.

2. Blanking and Stamping: Trust in our proficiency in blanking and stamping, where raw materials are shaped into the foundation of your components. Our experienced team and in-house tool room ensures uniformity and precision in every cut.

3. Progressive Tool Stamping: Elevate your projects with the power of Progressive Tool Stamping, a method that enables multiple operations in a single pass. Efficiency and precision are the hallmarks of this technique. With the use of our Auto Feeder, large volume production can be catered to.

4. Wire Cutting: Our advanced wire cutting capabilities ensure intricate shapes and sharp edges that meet the most exacting specifications.

5. Laser Cutting: Our latest laser cutting machine offer quick turnaround, flexibility of design and precision.

6. CNC Machining and Milling: Experience the marriage of technology and craftsmanship with our CNC machining and milling processes. Complex geometries and tight tolerances are achieved flawlessly.

7. Precision Grinding: Our precision grinding process guarantees the perfect finish, ensuring your parts not only meet but exceed industry standards.

- Computerized Vision System for Quality Assurance
- Precision Grinding
- Precision CNC Drilling
- In-House Plating
- Static Process Control

8. Secondary Operations: Beyond manufacturing, we offer an array of secondary operations in-house such as bending and forming, Tin & Nickel Plating, Black-Oxidizing, Tumbling, Chrome Plating, Gold & Silver Plating and more. Your components are meticulously crafted, ensuring they are not only functional but aesthetically exceptional.

9. Specialized Packaging: We understand that the journey of your components doesn't end with manufacturing. Our team customizes packaging solutions to ensure your parts arrive in pristine condition, ready for integration into your projects. One of the processes adopted is Tape & Reel packing for your Automated Pick & Place Machine.

Complete in-house manufacturing facility from designing to finish part at Kristeel speaks of total self-reliance.

Being a technological company, we are striving towards the Six Sigma level of operations in all our manufacturing and business processes. We practice latest management techniques like Quality Function Deployment (QFD), Failure Mode Effect Analysis (FMEA), Gauge R&R and Design of Experiments (DOE) at various levels to optimize our process for zero defect.

It is our endeavour to provide our customer a complete range of reliable technical solutions for their specific requirements.

Your Vision, Our Mission:

At KRISTEEL, we recognize that each project is unique. That's why we go beyond providing mere components; we deliver solutions that empower your innovation. Our team of experienced engineers collaborates closely with you, turning your ideas into reality while optimizing efficiency and cost-effectiveness.

Why Choose Us?

Discover the ultimate convenience with our total solution under one roof.

Craftsmanship in Every Detail: We view sheet metal manufacturing as an art form. Our skilled workforce meticulously shapes each part to perfection, adhering to the most stringent quality standards.

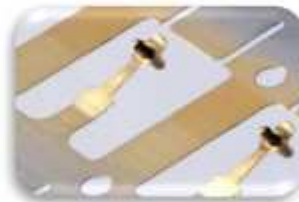
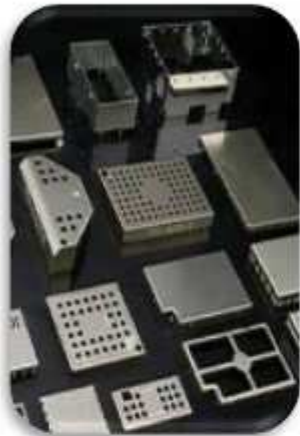
Our Engineers have been trained to use the most optimum process for your parts as per the precision and quantity desired by you.

Cutting-Edge Technology: Our state-of-the-art facilities house the latest machineries from USA, UK, Japan and others, allowing us to seamlessly integrate technology with craftsmanship, resulting in consistently outstanding products.

Customization: Your vision fuels our innovation. We specialize in tailoring each solution to your unique requirements, ensuring that every part aligns perfectly with your needs.

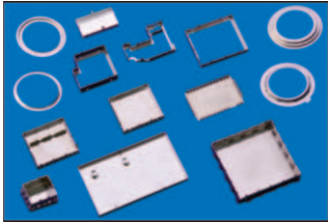
Reliability: With a track record of delivering on time and on specification, we are a reliable partner you can count on for all your precision sheet metal needs and your planned monthly requirements. Regular updates and knowhow from word leaders, Like- USA, Japan, UK

SHEET METAL PART THROUGH STAMPING AND BLANKING



INDUSTRIAL APPLICATIONS

Potential applications of Photo Chemically Machined products are practically found in most of the industries to name a few:

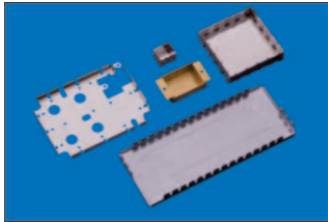
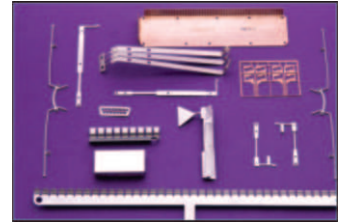


DEFENCE APPLICATION

Cathode Ring, Getter Ring, Assembling Ring, Grids & Kovar Lids, Plating Masks Shielding Cover and Fence, Photo engraved, Separators, Fine mesh, Pin Hole

TELE COMMUNICATION

Contact strips and covers, VCO Covers, EMI & RF Shields, Microwave Antenna parts & Strip lines.

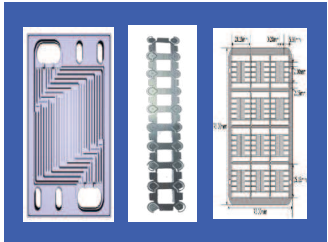
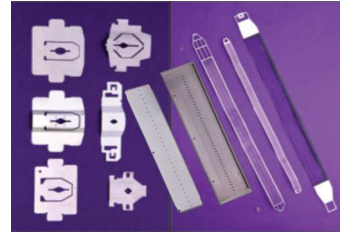


RF & EMI SHIELDING

Standard & Custom made Shielding as per design & specification

COMPUTER PERIPHERALS

Ribbon Mask for Dot Matrix & High Speed Printers, Ribbon Guide, Ribbon Feed Tooth, Washers, Earthing Plates, Solenoid Spacers, Circlips, Stopper and Leaf Armature, Paper Cutter. Application in Photo Copier machine with or without Graphite Coating & Coro wire. Application in High speed Line printers.

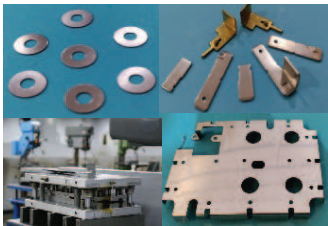


Green Energy

Parts for Fuel Cell, Bi-Polar Plates, Bus Bars

Filters, Strainers/ Selves

Stainers & Filters manufactured in special Alloy Steel, Fine Mesh, used for Juicer, Medical & Defence Industry.

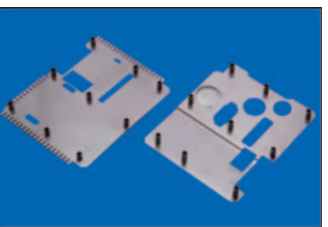
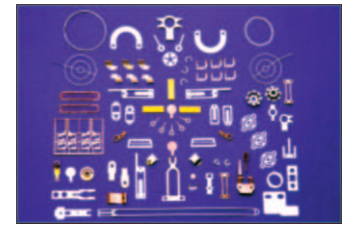


Progressive Blanking

Tab Terminals, Stators/Rotors Steel Laminations, Connectors, Lead Frames, Bus Bars, RF/EMI Shielding.

RELAY & ELECTRICAL SWITCH CONTACTS, FUSE ELEMENTS

Lead Frames, Wiper Contacts for Potentiometer & LPG Auto Kit, Insert Bobbin, Heating Elements, Laminations, Armature Springs, Links, Relay Washer, Contactors for Hearing Aids. HRC Fuse elements manufactured using ETP Copper and Silver, Lever Strips, lock lever, Release for Lever Switches, Indicator, and Spring for Fuse Shields & Covers, Bulk Head Plates, Shielding Strips, Battery Contact.

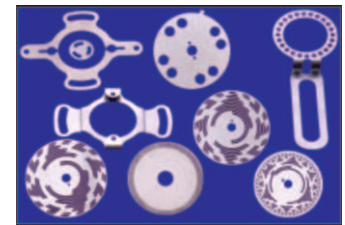


BLANK, BEND, PRESS PARTS

Critical Bended part for application in Defence, Electronic, Medical, Automobile & Aerospace Industries.

ENCODER PARTS

Standard and Customized Metal Pulse Encoder Disc Flex Mount Parts manufactured in imported Flat Stainless Steel with critical bending.

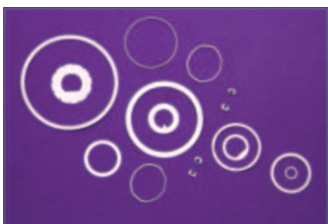
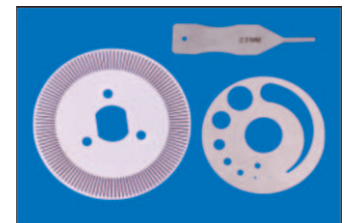


GOBOS, DECORATIVES, ARTICFACTS & TEXTURING

Over 100,000 range of standard designs of Gobos to suit all Events, Occasions, Festivals, Seasons, Windows, Entertainment, Films, Studios, Sports etc. We also undertake Customised Gobo. Decorative Panels, Idols, Book Marks, Certificates, Name Plates. Range of Textures for Roller:- Leather, Paper, Rexene Industry Wooden Laminates and Mould Texturing.

MEDICAL INDUSTRIAL APPLICATION

Interrupters for Blood / Gas analyzers, Aperture Plates, Specimen Holder Plates & Diaphragm for Leaf Cutting used in Microscope Surgical Blades for Ophthalmic purpose Blade Slit Mechanism



WASHERS & SHIMS FOR AERONAUTICS

Spacers, Tab Washers & Critical custom made Washers.

COMPRESSORS

Reed Valve, Discharge & Suction Valve, Flapper Valve off return Check Valve using a Special Alloy Steel, Pressure Plates, Diaphragm.



SURFACE MOUNT TECHNOLOGY



CHEM - ETCH & LASER CUT STENCILS USP's OF SMT STENCILS

- Manufactured in technical collaboration with M/s Metal Etching Technology, U.S.A.
- Competency to manufacture Fine Pitch Aperture.
- Tolerance on Etched Aperture is +/- 1 Mil.
- Stencils stretched on frames using imported Polyester mesh.
- Stretching & Mounting on imported Pneumatic Stretching Machine.
- Complete fabricated stencil delivered in 4 working days from receipt of approved SMT layout.
- Our Production, Marketing and Design Department are trained overseas to give you complete solution for SMT Stencils.
- Stringent Statistical Quality Control Norms.
- Manufacture of Glue Stencils for printing adhesives for Double Sided Boards an alternative to Dispensing.
- Manufacture of Micro Stencils for Printing and rework.

PRE-REQUISITES TO MANUFACTURE SMT STENCILS

Inputs such as any of the following:

- Gerber data of the Solder Paste Layer along with aperture list
- Bare PCB
- Screen Printer Model

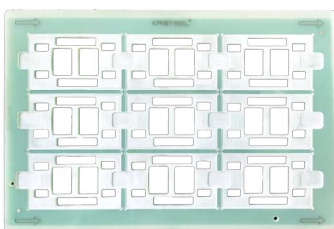
INDUSTRIAL APPLICATIONS

- TELECOMMUNICATION
- DEFENCE
- UNINTERRUPTED POWER SUPPLY (UPS)
- SMT CONTRACT MANUFACTURING HOUSE
- AUTOMOBILES
- OFFICE AUTOMATION
- COMPUTER PERIPHERALS
- CONSUMER ELECTRONICS
- MEDICAL
- ENERGY METERS
- AERONAUTICS

Manual Soldering JIG



Reflow Pallet



Router Fixture



Squeeze Blade



Wave Pallet in Surface Mount Technology (SMT)



Wave soldering also known as wave soldering fixtures or carriers, play a pivotal role in ensuring the quality and reliability of solder joints during the wave soldering process. They are designed to hold and support printed circuit boards (PCBs) in a precise position, allowing them to pass over a wave of molten solder, which forms the solder connections between the components and the PCB.

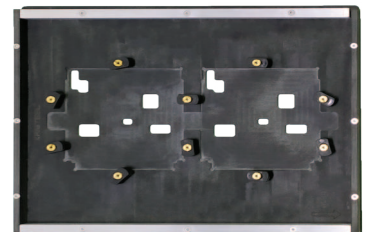
Applications of Wave Pallets: They find applications in various industries like consumer electronics, automotive, aerospace, medical devices, industrial, etc. Wave pallets play a pivotal role in the SMT process, contributing to its efficiency, precision, and reliability:

- **Component Alignment**
- **Solder Wave Containment**
- **Thermal Protection**
- **Reduced Flux Contamination**
- **Enhanced Solder Joint Quality**

Materials Used: The choice of materials for wave pallets is critical to their performance and longevity. Common materials include:

- **Aluminum**
- **Stainless Steel**
- **FR-4 Composite**
- **Polyimide**
- **Polytetrafluoroethylene (PTFE)**
- **Titanium**

Wave Pallet



Wave Solder Pallet





FACTORY



KRISLON HOUSE

FEW PRESTIGIOUS CLIENTS

SIEMENS



LARSEN & TOUBRO

Amphenol
FCi

Crompton
Greaves
EVERYDAY SOLUTIONS

MINDA

इका **EC**

भारत इलेक्ट्रॉनिक्स
BHARAT ELECTRONICS

KAYNES
TECHNOLOGY

भारतीय प्रौद्योगिकी संस्थान दिल्ली
Indian Institute of Technology Delhi

SYRMA
SGS

Wika



MICO
Bosch Group

TATA
TATA POWER

हि ए लि
HAL

pricol

TVS
ELECTRONICS

इसरो **isro**

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