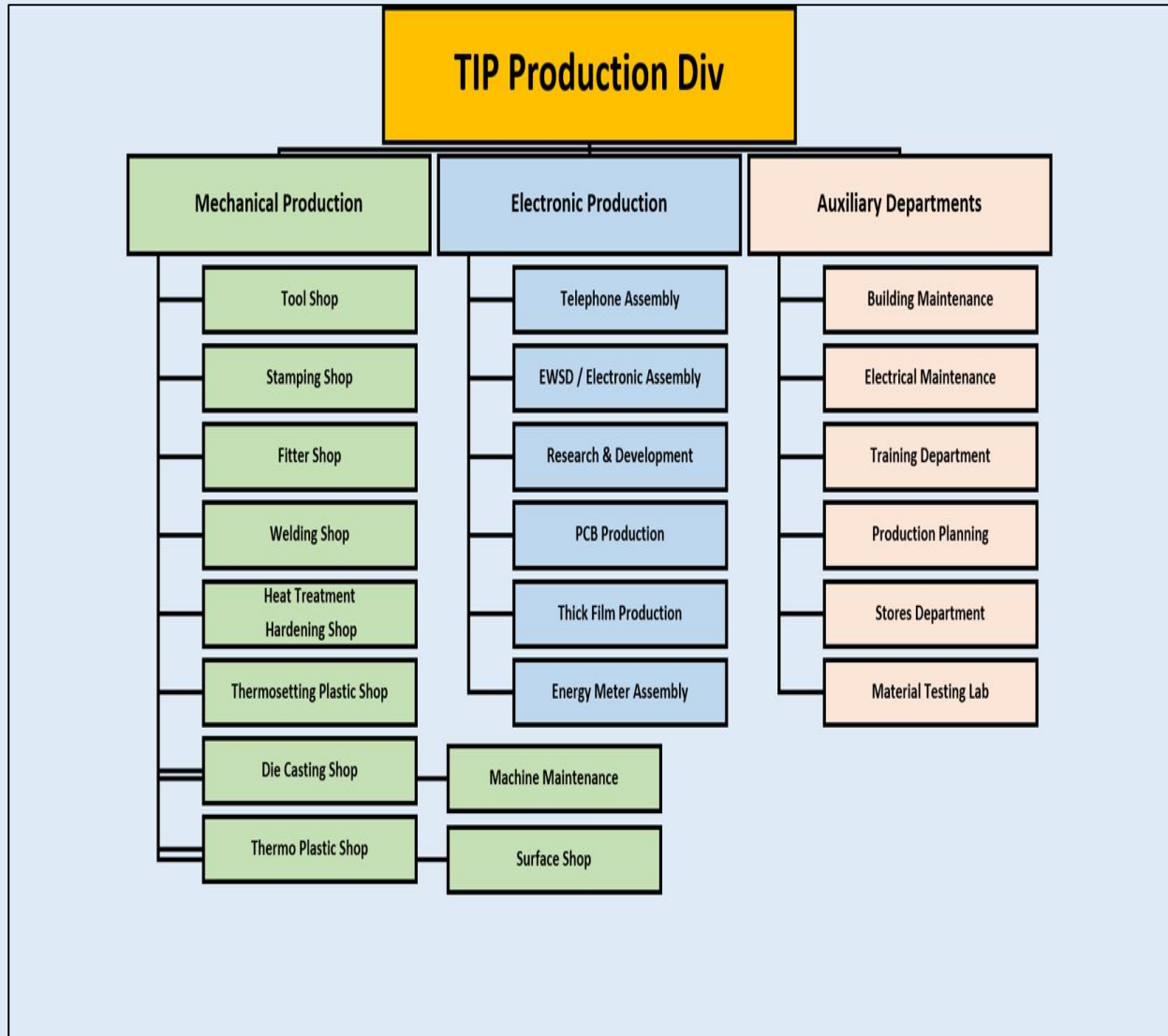


Details of Workshops and Assembly Lines



TIP, Situated in Haripur, in close proximity to CPEC route , Hazara Express, 70 Km north of Islamabad. TIP offers a wide range of integrated manufacturing facilities with workshops equipped with Hi-Tech machinery & skilled manpower.

Premises & Infra-structure

Being situated in close proximity to CPEC, TIP has a vast horizon of opportunities. In addition, TIP has vast halls, equipped with industrial connections for electricity, gas, water supply, compressed air supply and relevant machinery, are ideal for manufacturing/ assembling activities.

1. Printed Circuit Boards Manufacturing

TIP PCB is one of the industry's best and most reliable high technology quick turn PCB manufacturing sources in Pakistan. Our PCB manufacturing process, certified by ISO, utilizes hi-tech facilities with team of qualified engineers and experienced inspectors and is carried out in clean room environment. That's why we can quickly deliver state-of-the-art PCBs and unique engineering solutions of unmatched quality at highly affordable prices.

TIP PCB can meet all your raw unpopulated PCB requirements. Our partners specialize in manufacturing high quality PCB's for surface mount technology and Chip on Board applications. Currently, we provide, Flexible, Double and Single sided PCBs. We do fine line circuits, small holes, and very thin boards for high technology applications.

2. Plastic Parts Manufacturing

TIP Plastics manufacturing is providing plastic injection, molded parts, and all related inspection services to customers at competitive pricing in the telecommunications, medical, electronic/electrical, automotive, and personal care industries among others.

TIP Plastics' mission is to combine traditional craftsmanship with state-of-the-art technology in designing and producing the highest quality tooling and plastic injection molded products, and to create long-term partnerships built on open communication and reliable performance.

We operate state-of-the-art CNC tooling equipment and molding presses.

3. Thick Film Manufacturing

TIP is a leading specialist in the design and manufacture of Thick Film Hybrid microelectronic assemblies.

Ideal for use in environments where a high level of reliability is required, Thick Film Hybrids can withstand a much wider temperature range and have much higher durability than conventional PCB assemblies. Most often, Thick Film technology is used in aerospace, and automotive applications, but its' durable and reliable properties are starting to appeal to a broader market, and the demand for such skill and knowledge is ever growing.

Thick Film Hybrid circuits are made using a print, fire & trim (P, F & T) technique, with a combination of multi-layer screen printing of precious and semi-precious metals (Au, Ag, Pd) and firing of tracks and precision resistors onto a range of ceramic substrates. Surface mount components and components with wire bonding can also be incorporated, and optional full encapsulation provides greater protection from wearing.

- High reliability for harsh environment applications
- Flexibility to choose precise resistor values with active laser trimming

- High Voltage (HV) resistors
- Extended temperature range performance
- Improved thermal management with thermally conductive substrates
- Excellent high-frequency performance
- Low start-up costs and fast lead-time to prototype

4. Energy Meter Assembly

5. Thermosetting Plastic Shop

6. Metal works

Manufacture of different kinds of metal parts on CNC piercing/ blanking, punching, bending, turning, milling, grinding, welding machines. Aluminum die-casting is also available in TIP. Manufactured parts are given appropriate / desired surface treatment by painting /plating (zinc, nickel, chrome, copper etc.). Heat treatment / hardening facilities for metal parts is also available

7. Tool Manufacturing

Manufacture of plastic molding tools, Cutting/punching/bending compound tools for sheet metal work. Our tool making equipment includes:

- CNC Machining Centers
- CNC Electric Discharge Machines
- High-speed CNC Milling Machines
- Milling Machines
- Wire Cut Machines
- Precision Surface Grinding Machines
- Automated Precision Coordinate Measuring Machines
- Drilling Machines
- Grinding Machines
- Boring Machines
- Lathe Machines

8. Surface Treatment

All the mechanical parts are treated to ensure durability in different climatic conditions. This includes zinc, nickel, chrome, copper plating and vast variety of painting etc.

9. Styropore Molding

Capacity to manufacture all types and sizes of styropore packing.

10. Electronic Circuits assembly

We can assemble THT / SMT electronic circuits with high accuracy and speed in ESD and clean room environment. The quality of the work is checked at every position. Finishing, cabling & mounting of assembled circuits in housings can also be done.

11. Wood Works

Basically used to make wooden packing for Electronic and Mechanical equipment for inland and foreign freights, TIP's wood works remained engaged in manufacture of office furniture including different kinds of tables, chairs, cabinets, office cabins, wooden / glass partitions

12. Training Shop

13. Research & Development

14. Container and Tower for Communication / Power