











## **ABOUT US**



"Pacific Semiconductors Private Limited" a company incorporated under The Companies Act 1956 commenced operations from its registered office in Pune from 1996. The company's initial foray was trading in electronic components. The customer base was essentially the existing electronic industry in India. This expanded in steps to include imported sub-assemblies / components for defence equipment and from there to manufacturing. Over the years Pacific has evolved into a highly professional and reliable electronic manufacturing hub meeting the requirements of defence, aerospace, avionics, marine and land based systems.

By the year 2011, the Company established itself fully as a dependable, quality conscious and extremely competitive manufacturer of electronic, electro-mechanical components particularly for the defence sector. It had also added to its services indigenous production of sub-assemblies and sub-systems thereby providing solutions for import substitution.

Achieving self certification capability through ISO 9000 certification during this phase, Pacific enhanced its quality assurance profile thereby gaining greater customer confidence.

Presently Pacific has further expanded its capabilities through gradual add-ons toits infrastructure. It can now provide "Built to Print' and "Built to Specs" services thereby enabling indigenous solutions to its esteemed customer's legacy pain points.In addition Pacific has also successfully undertaken innovative manufacture and re-engineering of some of the major sub systems/ components of defence electronics and weapon systems. We are also proud to be propriety certificate holders of some of these specific sub assemblies.

Pacific is currently poised to be an End to End solutions provider to the defence industry encompassing in its offerings design, sourcing, manufacturing, testing and integration of systems. Our ambition to be able to lend our shoulders to the Indian Armed Forces in its endeavour to become self reliant through indigenisation is in the process of realisation.

Pacific has in its clientele, many of the major military establishments across the country covering the Indian Army, Indian Navy, Indian Airforce and Ordnance factories. Being registered vendor for well over a decade in this environment, Pacific is keen in expanding its customer base to include public and private sector enterprises engaged in production and testing of defence related equipments and systems.

In its endeavour to increase the dependability of its product/offerings, Pacific has stepped up already well entrenched quality assurance programme. The company's testing facilities are under the process of becoming "ISO17025:2005" compliant"through National Accreditation Board for Testing and Calibration Laboratories (NABL) and recognised "Test House" through Centre for Military Airworthiness & Certification (CEMILAC). We expect certifications to be in place by March 2019.







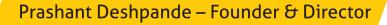






# **TEAM**







A Mechanical engineer from Pune and an MBA from the Institute of Management Studies Pune, Mr Prashant Deshpande is the founder Director of Pacific Semiconductors Private Limited. Business development particularly the Defence Sector and General Management of the Company are his core responsibilities. In the last 15 years, Prashant has successfully established Pacific as a trusted and reliable partner for the Indian Armed Forces in their endeavour to find quality import substitution or abinitio indigenization of their weapon system electronics. Under his stewardship the Company is poised to expand itself to be an end to end provider of quality and reasonable defence electronics and mechanical systems.

# Sunita Deshpande - Director



Mrs Sunita Deshpande, a science graduate from Ahmedabad and a Computer Science graduate from Data Pro Institute of Computer Science, has been a Director of the Company from 2010. She handles the day to day management of the company and heads the Administrative Section of the Company. Under her able guidance Pacific successfully achieved ISO9001:2008 Quality Management System Certification. She iscurrently very actively engaged in the pursuit of ISO: 17025 certification.

# Mahesh Deshpande – Co-Founder & Director



Mr. Mahesh Deshpande is a co-founder and Director of the Company. A Computer Engineer from Pune, Mr. Mahesh is also the proprietor of Panacea InfoTech, which specializes in healthcare software. Mahesh is vigorously involved in setting up of an effective ERP management software for Pacific..

# Rear Admiral S Madhusudanan IN (Retd) – Technical Advisor



Rear Admiral S Madhusudanan IN (Retd) is a naval marine engineer and has served onboard warships including aircraft carriers and undertaken key shore assignments in India and abroad covering areas such as technology management, technical training, quality assurance, warship building overseeing, marine infrastructure and project management. He is an alumini of the Defence Services' Staff College, Coonoor, and also a Fellow of the Institute of Marine Engineers, India.













## **SERVICES**



## Electromechanical Contract Manufacturing & Assembly Services

Since 2011, Pacific has been successfully providing electro-mechanical contract manufacturing and assembly services for mission critical components/ sub -assemblies meeting the stringent quality requirements of its defence and industrial customers. These components /sub - assemblies have been successfully integrated with existing legacy systems thereby boosting the indigenization drive of the Armed Forces. Pacific has repeatedly proved to be a reliable source for import substitution through its innovative indigenous and largely in-house efforts.

The entire process of manufacture commencing with design up to final assembly and testing are undertaken strictly as per laid down process sheets/ work instructions and adhering to stage wise quality checks ensuring snag free operations and complete traceability.

Pacific has over a period of time professionally developed and nurtured a very wide network of reputed vendors thereby building a very robust supply chain. All the manufacturing inputs, in terms of material and spares/ sub components etc., are sourced from these international and national tier one manufacturers possessing doubtless quality credentials. This ensures that all of Pacific's products are made up of the best raw material meeting the best industry standards.

In addition, engineering design and build services for prototyping and custom build applications are also a part of its portfolio. Towards this Pacific's engineering staff works together with its customers to achieve in each delivered product all the specified design parameters.













# **SERVICES**



# Electromechanical Contract Manufacturing & Assembly Capabilities

Manufacturing Process and capabilities	Electro-mechanical Assemblies Built to Print Services
Manufactured Products	Control Units Relay Boxes Sensors Distribution Boxes
Components	Circuit Breakers Terminal Boxes Time Relays Indicators Electro-pneumatic Valves
Assembly	Instrument Panels Distribution Panels Junction Boxes Testers
Testing	100% Functional Environmental Durability
Documentation	Process Sheets Test Reports Certificate of Conformities
Production Volume	Proto type High Mix Low Volume
Industry Focust	Defence Marine Aerospace Transportation Industrial
Industry Standards	ISO9001:2015
Special Attributes	Indigenisation Reverse Engineering















## REFURBISHMENT SERVICES



### **Equipment Refurbishment Services**

Refurbishment can significantly extend the useful life of modules, sub-systems, systems and equipment and is an often preferred alternative to procurement of new equipment. Many customers find that refurbishment programs can save them 40-60% the cost of new equipment. Continued use of existing equipment also eliminates costs associated with operation training, certifications and maintenance training on new systems.

Pacific has successfully undertaken refurbishment of various electro-mechanical and mechanical modules, sub-systems and equipment since 2009. The extensive skill and experience of our technicians ensure that refurbishment undertaken by us matches with the OEM specifications. We offer a standard factory warranty on all parts and work performed by us in any refurbishment.

### Refurbishment Evolution

A typical refurbishment begins with a full evaluation of the unit's condition. A fixed price quotation and statement of work is thereafter prepared for the customer. A contract is finalised based on inputs received at this stage

Once under contract, the unit is shipped to our factory where a complete disassembly is undertaken which includes all wiring, electronics, sheet metal parts, housings, covers etc. All parts are cleaned by pressure washing, sanding, and/or blast cleaning with applications of rust-removal solvent to components as required. All exposed mechanical parts are cleaned and coated for protection. Housings are flush-cleaned. Rust inhibitors are applied. We then prime and paint all refinished and exposed surfaces with high-grade exterior paint. All items are carefully inspected for wear, damage, or defects, including body mounted components, housings, covers, sheet metal parts, and drive line components, such as gears, reducers, drive shafts, and pulleys. All component that fail to meet specification or that are causing a problem are discarded and replaced. Such parts may include worn or damaged wiring, drive belts, brakes, synchro packages, limit switch packages, wiring harness, and positioner cables from the control console.















## **REFURBISHMENT SERVICES**



In as much as the electronic components are concerned, a special series of tests are undertaken to establish soundness of the existing parts. In the event of even a slight deviation or shortfall, the components are replaced using quality certified equivalents. A full functional check is undertaken component wise as well as subsystem wise to ensure that there is no doubt in the final performance of the system.

We then install new parts along with any of the surviving legacy parts. During this step, all items that may be adjustable such as gear train backlash and travel limits in all axis are tuned and all gear lubricants, damaged components and damaged wiring are replaced. We maintain zero-tolerance for product failure of new, refurbished and remanufactured equipment. Before leaving our facility, all parts and modules will be tested, recounted and be inspected by our quality control department.

An acceptance test on the unit is conducted to assure correct functional performance. Optionally installation and commissioning tests are carried out at the customer site, alongwith other numerous optional range support services.

All refurbished items are backed with a quality factory warranty upon product delivery.













# INTEGRATION



### System Integration

Any system is an aggregation of subsystems operating in such a manner that it delivers the overarching functionality desired of it. Achieving that functionality is the role of the System Integrator, a task that Pacific has been performing the last many years with unmitigated success.

In today's connected world, the integrating role played by Pacificin product development / manufacturing is of vital importance as more and more sub-systems are designed to connect, both within the system under construction and to systems that are already deployed. In this endeavour Pacific has been able to enhance system effectiveness and efficiency through superior design and flawless manufacturing followed by rigorous testing to establish complete system functionality. This 'total quantum approach' adopted by Pacific adds substantial value to the Customer's product.

The broad range of skill sets available with Pacific, which are defined more by the breadth of its technical expertise rather than to just in-depth technical knowledge, has been the corner stone of its success. These skillsinclude softwaredevelopment, adaption of correct systems and enterprise architecture, employment of appropriate software / hardware engineering and interface protocols combined with general problem solving capability. Pacific is hence armed to take on new and challenging problems.

This capability of Pacific not only reflects its excellence in design and production, but also in its wide vendor base, collaborative tie ups with leading industrial houses, in house and outsourced testing facilities which all contribute to increase in the reliability of the individual / discrete product and hence reliability of the total system. Our aim has been and will continue to be the continuous development of our technological competencies and utilising them in a plethora of novel applications such that our Customers stand to gain by our association at all times.













### INTEGRATION

In the projects undertaken thus far, Pacific has had extensive practical experience in integration of 19" rack systems, instrument panels, ATEs and control cabinets for a wide range of military and civilian applications. These included single or multiple panel rack systems, fully customised control cabinets etc,in both low and medium volumes. Our fully integrated rack mount solutions developed to customers' technical drawings and specifications have been widely accepted commercially and technically. . We have also customised control cabinet enclosures with safety glass, mesh and steel ventilated doorsincorporating select/ customised cable access and power management sub -systems.

Pacific's dependable and quality consciousindustry connects haveconsistently provided timely assistance in the manufacture of floor standing racks, wall mount racks, card racks, instrument racks and fabricated enclosures. Surface treatment like Powder coating, enamel painting and surface coatings for enclosures undertaken through local vendors have always strictly adhered to the laid down quality standards/specifications.

Some of the integrated solutions that Pacific has provided, all undertaken in dust free, ESD safe and controlled environments maintained as per international standards, include: -

Mounting within enclosures / panels various test equipment, readymade electronic hardware, displays, PCB modules, PLCs, switches, connectors and buttons, Circuit Breakers, Contactors etc.,.

Mounting and routing of Cable harnesses and assemblies.

- Sub rack installations.
- Power installations.
- Software development.
- Uploading software and firmware.
- Complete System Functional Testing.
- Reliability assurance as specified.













# MARKET SERVED



The Defence industry in India is undergoing significant transformations in realisation of the national objective of self-reliance or even self-sustenance in support of its Defence Forces. Driven by this motivation larger indigenous content is being increasingly sought in all products. Pacific has from its conception provided to its customers, the Indian Armed Forces and defence establishments, indigenous Electronic, Electrical, Electro-mechanical and Mechanical Components, modules and sub-systems to meet their objectives.

Our customers' technically challenging, low volume, high mix electronics and electro-mechanical needs have at all times been successfully fulfilled. Our electronic and electro-mechanical assemblies, high-reliability unit integration which are used in harsh environmental conditions are all subjected to environmental and durability tests as per Military standards to ensure their reliability.

Pacific has proven records in providing comprehensive design, manufacturing, testing and supply chain services, all of which meet the stringent quality standards of the defence and civilian industry.

### **Aviation**

Industry requirements have consistently been demanding on quality and all products are necessarily to meet stipulations of MIL810 standards for airworthiness. We at Pacific have been successful in meeting these standards and have supported the Indian Air Force

- Since 2008 Screening and qualification of electronic components for airborne, ground systems
- Since 2001 Indigenised analogue and digital PCBs for Electronic Warfare System
- Since 2016 Design and development of test benches for testing of on-board airborne electrical systems



















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## **MARKET SERVED**



## Naval/ Marine

The tremendous strides made in Ship building and the sustained thrust on indigenisation in the Indian Navy has provided Pacific many opportunities in providing to be a reliable partner in the march to self reliance in the maritime sector. Our involvements are

Since 2008 - Indigenisation of PCBs and sub-systemsfor ship borne weapon and non-weapon systems.

Since 2009 - Refurbishment and testing of electrical and electro-mechanical units, modules for various surface ships and sub marine systems.

Since 2009 - Sensors deployed in magazines.

### Defence

The Indian Army has many requirements indicated to the Indian defence industry in its efforts at indigenisation. In this endeavour Pacific has played a significant role particularly in Armoured Vehicles in the recent past.

Since 2015 - Manufacturing of instrument panels and integration of Electro-mechanical unit like Automatic Control Unit.

Since 2016 - Sensors for Pressure, Speed, RPM and temperature

### Industrial

The evolution of multiple smart systems and a huge demand on electronic application across the spectrum of goods in the Industrial arena has encouraged Pacific to enter this segment.

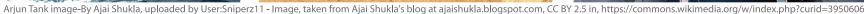
Since 2015- Embedded systems incorporated in process control instrumentations/ sensors

Design Solutions – End to end solutions for all applications

EMS+ Unit Integration- System Integration with safety and sustainable self reliance

Electro- Mechanical – Reliable interface and rugged service life







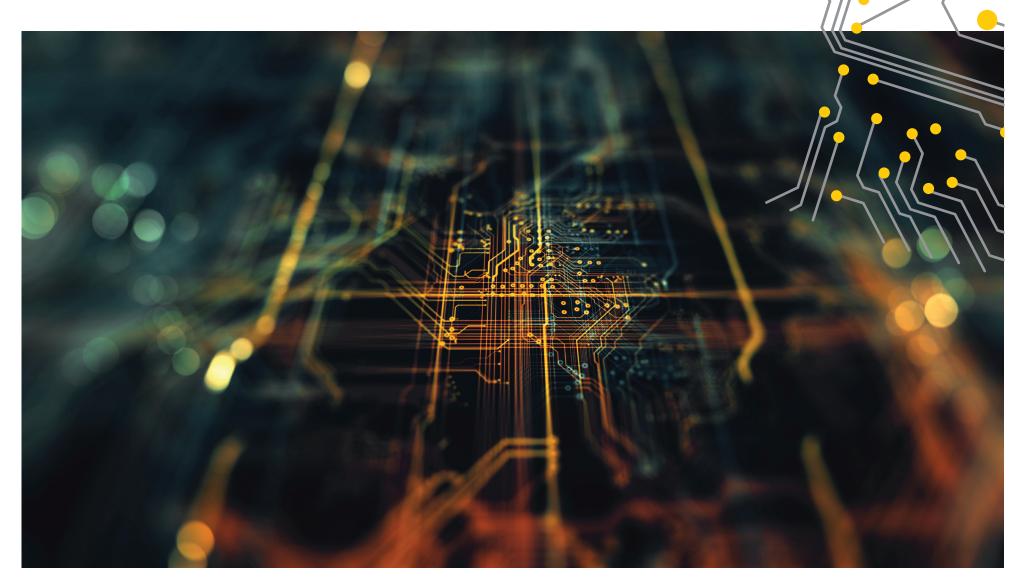














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