

# O/E/N India Limited

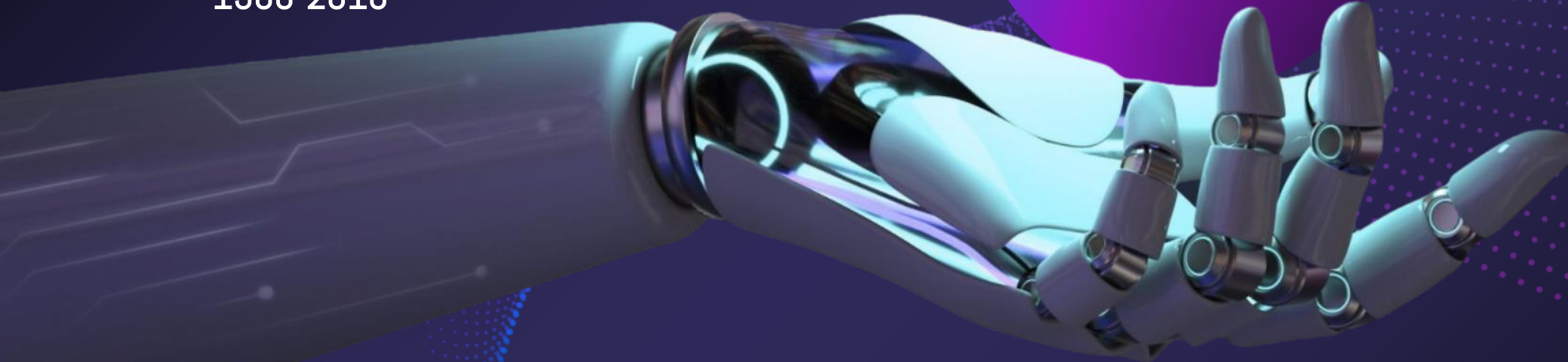
✿ We make electronics work





• 1968-2018 •

CELEBRATING  
'FUTURE'



RELAYS

EV-EVSE  
CONTACTORS

CUSTOM-BUILT  
AEROSPACE  
ASSEMBLIES

BUS BARS

SWITCHES

# Market Leaders in India for Relays & EV-EVSE Contactors



Established in **1968** with technical collaboration of OAK Industries



**50+** years of manufacturing experience in relays, switches & custom-built assemblies



State of the art production facilities at Kochi & Pune



Manufacturing area of **31,000 sq. Meters**



O/E/N brand known for quality, reliability & innovation



Strong presence in automotive, industrial & other strategic market segments



ISO 9001, IATF 16949, ISO 14001, ISO 45001, AS9100D certifications



# Product Range

## Relays

- Automotive Plug In & PCB
- Industrial PCB & DIN RAIL mountable
- Timer Relays
- EV Relays
- Latching RELAYS

Switches

Custom Built  
Aerospace  
Assemblies

Bus  
Bars



# Approvals & Certifications



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



IATF16949:2016



AS 9100D



# Manufacturing Facility – Inhouse Tool Room

## In-house Tool Room

- Wire Cut EDM,
- Spark Erosion CNC EDM
- 3 Axis Vertical Milling Centre
- Super drill
- Radial drilling
- Surface grinders
- Planers
- Lathes
- Software for CAD/CAM Design, Modeling, Programming & Manufacturing



Wire Cut EDM &  
Spark Erosion CNC EDM



CNC Profile Grinders

# Manufacturing Facility – Fabrication Shop



Press Shop for  
Stamped Parts

5 T to 110 T Capacity  
Presses

Max Speed 1400 SPM



# Manufacturing Facility – Moulding Shop

Moulding Shop

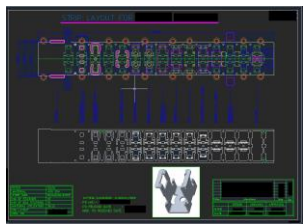
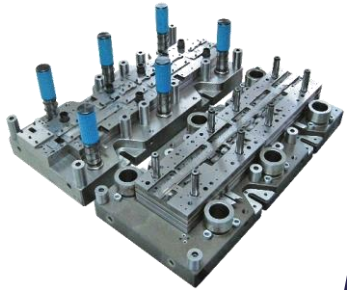
Injection Moulding  
Machines with 100 T  
capacity

Injection Moulds up  
to 20 cavities

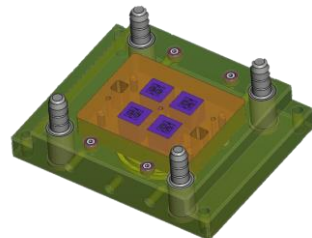
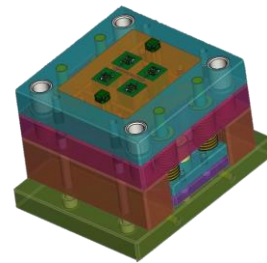




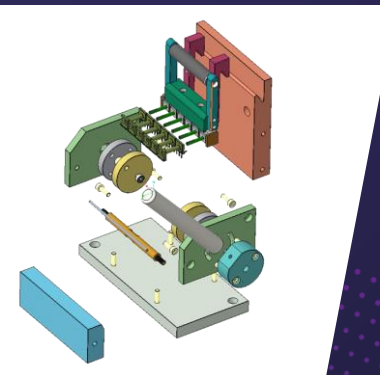
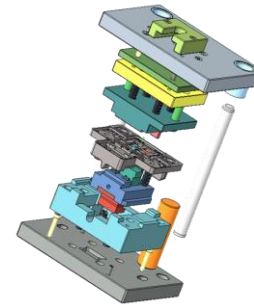
## Progressive stamping tools



## Injection moulds



## Assembly tools & fixtures



## Tool & Mould Design

Experienced &  
Qualified Team of  
Design Engineers

Design & Development of  
progressive sheetmetal stamping  
tools, injection moulds, assembly  
tools and assembly fixtures.

# Manufacturing Facility – Semi Automated Plating Lines

## Semi-Automated Plating lines

- Plating capacity of 1 M parts per day
- Vibratory & Barrel Plating
- Complying to MIL and ASTM standards
- Vibratory Plating for high precision parts

## Types of plating finishes

- Silver
- Gold plating & flashing
- Tin-bright/matte finish
- Copper
- Nickel- bright/ semi-bright/ dull
- Trivalent chromium
- Zinc, Zinc-Nickel



# Precision Engineering Competence

## Cases and Covers



## Coil Bobbins & Actuators



Mass  
Produced  
Parts

## Insert moulded components



## Stamped metal parts



# Manufacturing Facility- Assembly plant

## Automated Assembly/ Finishing lines

- Automatic Winding
- Auto Soldering
- Automated sealing machines
- Fully & Semi Automated Relay assembly lines
- Automated End of Line Testing

## Production Lines

- Fully Automated & Semi-Automated Assembly Lines.
- Annual Capacity of **75 M Relays**
- End of Line Testing Stations
- Skilled & Trained Operators backed up by Engineers



## In-house process automation



Fully Equipped Department to meet all the Automation needs of the plant



Dedicated Team of Engineers for design, fabrication and maintenance of Automated Production Lines



In-house machining equipment to serve tooling needs

### Key highlights:

Semi automated and fully automated production lines incorporating the latest automation technologies

Automated End of line testing machines

Standardized product testing and evaluation equipments adapted for different product lines





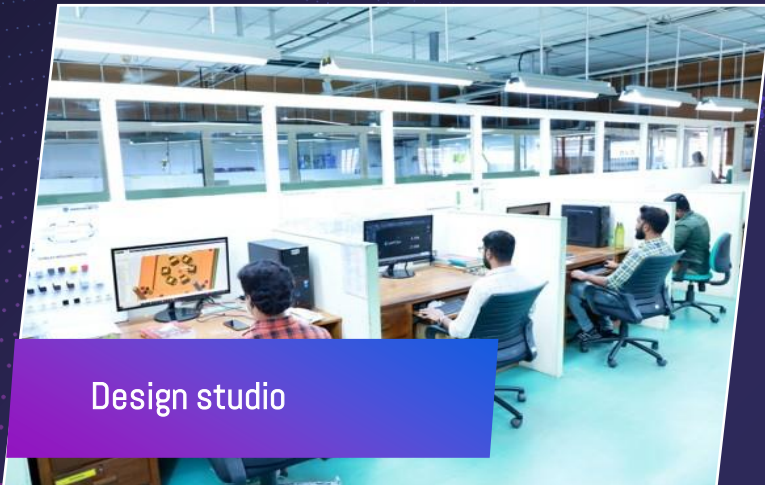
Technical Teams for Product Design, Development & Technology Absorption (Design includes microcontroller based products)



Capability to build Quick Prototypes



Competence to design and manufacture Tools & Molds for high precision, complex parts



Design studio



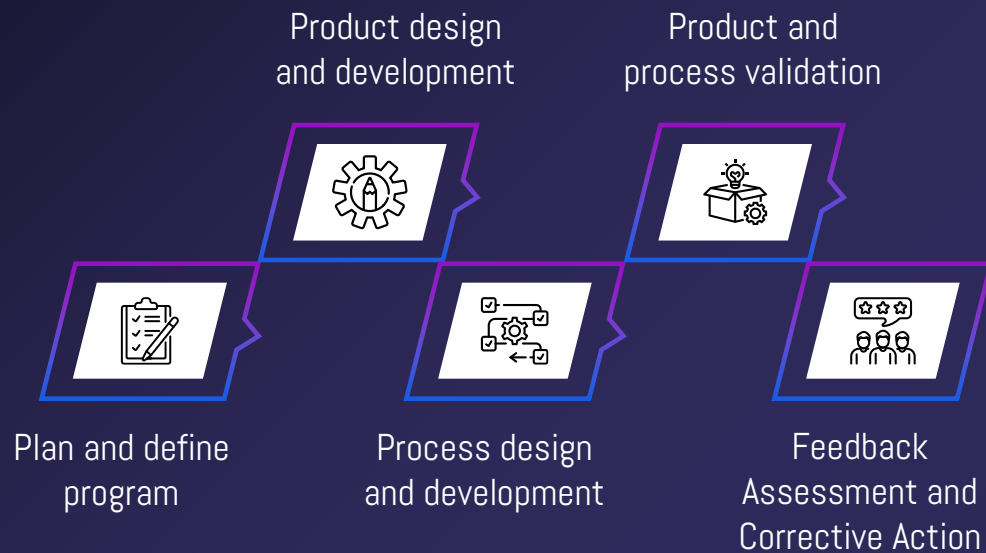
Prototyping lab



Aerospace Division

# Product Design and Development - APQP Design Methodology

All general product development activities are handled following APQP (Advanced Product Quality Planning) methodology. APQP is a 5 step process



## Benefits of APQP methodology



To direct resources to satisfy the customer



To understand the needs of customers at conception stage



To promote early identification of required changes



To avoid late changes



To provide a quality product on time at the lowest cost

The QA Lab is equipped with state-of-the-art testing equipment required for Inspection, Testing & Qualification of products to Automotive, Industrial & MIL Grade Standards & Specifications.



**AUTOMATIC RELAY TESTER**



**INDUCTIVE LOAD TESTER**



**DGAQA Certified Test Facility for Environmental tests as per MIL-810**

## Testing Facilities

- Thermal Shock Chamber (-70 Deg C to +170 Deg C)
- Salt Spray Chamber
- Hot Air Ovens (Temp 30 – 200°C)
- Hardness Tester X-Ray Plating Thickness Measurement
- ED XRF Epsilon 1 - : Plating Tester, RoHS tester

- Inductive & Resistive Load Testing – 10-100A at 230VAC
- Load Tester - 30VDC, 300A
- 500VDC, 66A Load Tester
- Universal Testing Machine
- Altitude Chamber : 0-760 mm Of Hg, Upto 75000 Feet (22000 meters).
- Vibration Tester 3,500Hz, 120G
- Bump Test 40G



**Environmental Chamber**





## Automotive



## EV-EVSE Products

### Plug in Relays



### High Voltage DC Contactors



### Programmable Relay Timer Modules



### PCB Mountable Relays



### EV Relays



### Bus Bars





## Industrial Controls & Automation

### Din Rail Mountable Relays



### Latching Relays



### PCB Mountable Relays



## Defence And Aerospace

### High voltage DC contactor



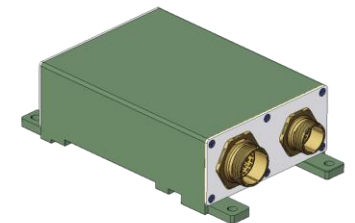
### Linear Freewheel actuator




### Inductor bush




### Chip burning module



# Customer Support Network

 Factory

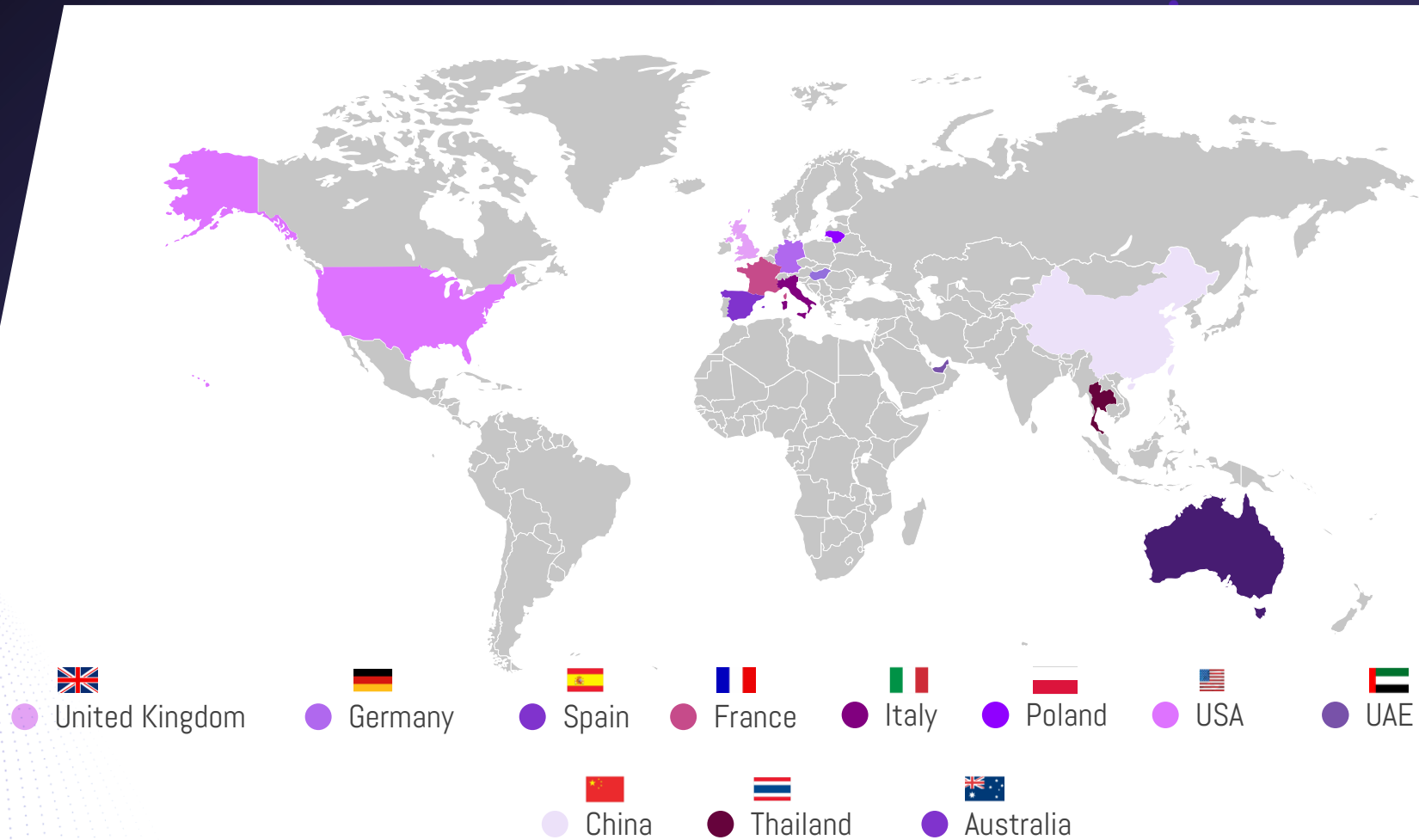
 Corporate Office



 Authorized Stockists

 Regional Office

# International Sales Regions



# Why O/E/N



Over five decades of specialized expertise in development and manufacture of electromechanical components & strategic electronic products – A legacy brand



Innovative product design and development team to convert ideas and concepts to customized switching solutions



Multi-locational state-of-the-art manufacturing facilities with fully automated & semi-automated lines



Relentless focus on product quality and reliability



Customer centric approach that has been rewarded with an ever- expanding base of loyal customers in India and abroad

# O/E/N India Limited

✿ We make electronics work

Backed by over five decades of proven manufacturing and technological excellence, we are continuously striving to match and exceed the expectations of our customers and business associates.

## Connect with Us!!

 [www.oenindia.com](http://www.oenindia.com)

 [marketing@oenindia.com](mailto:marketing@oenindia.com)

