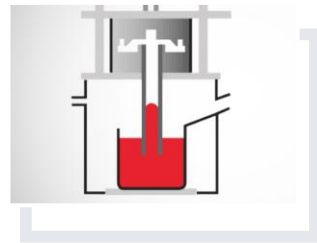


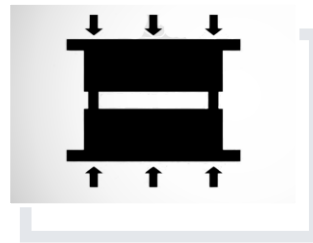
Die-casting dies



GRAVITY



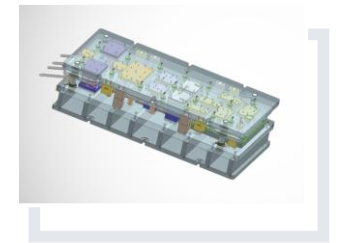
LPDC



HPDC



STAMPING



PROGRESSIVE

Our Story

About US

At **Three D Tooling Technologies**, we build upon a rich legacy of innovation, precision, and engineering excellence that has shaped the tooling industry in India for close to three decades. **Founded by the visionary behind one of South India's most respected tooling enterprises, our roots lie in delivering complex aluminum die casting dies and sand core box solutions to leading OEMs and Tier-1 suppliers.**

Carrying forward the same values of quality, reliability, and technological leadership, this new venture brings advanced engineering capabilities in CNC manufacturing, CAD/CAM design, and large-format tooling. With a highly experienced team and a strong network of partner machine shops across South India, we ensure precision, consistency, and on-time delivery. Our in-house capabilities enable us to manufacture complex dies up to 3m x 2.1m, with a clear focus on indigenization and innovation. **As we enter this next chapter, Three D Tooling Technologies is committed to exceeding industry expectations—delivering cutting-edge solutions and helping shape the future of high-tech tooling in India.**

Executive Leadership

Driving the Vision and Strategic Direction

Providing clear strategic direction rooted in decades of industry experience. A passionate technocrat shaping the future of Indian tooling through innovation and global perspective.



C Ravi Chandran

Managing Director

Tooling Experience : 33 Years

A visionary technocrat with over three decades of leadership in the tooling industry, he brings unmatched technical depth, passion, and foresight. Renowned for pioneering one of India's most respected tooling enterprises, he has delivered exceptional tooling solutions to leading OEMs and Tier-1 companies across the country.

An early adopter of next-generation global technologies, he is driven by a relentless pursuit of innovation.

*His global exposure—through visits to international trade shows, OEMs, advanced tool rooms, and manufacturing hubs—continues to fuel his mission: **to bring world-class tooling processes, practices, and solutions to India**. His ability to embrace cutting-edge trends and integrate them into Indian manufacturing has made him a true catalyst for change in the industry.*

Functional Leadership

Leading Key Business Functions with Expertise

At **Three D Tooling Technologies**, functional leadership is the backbone of operational excellence. With deep expertise in manufacturing and engineering, our leaders drive precision, quality, and performance. Their executional strength ensures we deliver cutting-edge tooling solutions across every stage of production.



R Venkatesan

Director - Engineering

Tooling Experience : 23 Years



J Pandian

Director - Manufacturing

Tooling Experience : 23 Years

We are Driven by Experience & Skill

Led by **Mr. C. Ravichandran**, a seasoned tooling professional with over **32 years of experience in high-end tool and die manufacturing**, our company is built on deep technical knowledge and a commitment to precision and innovation. He is supported by a skilled team of engineers and senior designers, including IIT alumni, who bring strong academic and industry backgrounds.

Our team brings-in over 3 decades of tooling experience and are proficient in CAD/CAM, 3D modeling, parametric design, reverse engineering, and CNC programming across multiple platforms. Complementing this technical strength, our toolmakers bring proven hands-on skill, consistently delivering complex and challenging jobs that others could not — demonstrating the talent and capability that define our team.

Talent Spread	
Engineers	8
Supervisors	4
Tool makers	10
Skilled operators	30
Consultants	3

What we deliver

Our Services:

1. Modelling and engineering of parts to be manufactured.
2. Mould and trimming die design using 2D and 3D CAD systems.
3. Mould construction compatible with die casting machines up to **3,500 tons**.
4. Experience with advanced technologies such as vacuum casting, squeeze casting, conformal cooling, jet-cooling, and spot cooling.
5. Construction of trimming tools with double-effect systems and hydraulic movements for presses up to **150 tons**.
6. Capability for sampling and pre-production using equipment up to a **3,200-ton** die casting machine.
7. Dimensional inspection using CMM and laser scanning for 2D and 3D measurements of sample and tooling parts.
8. Fast-response assistance and spare parts service for all our equipment.

What we offer

Our Solutions

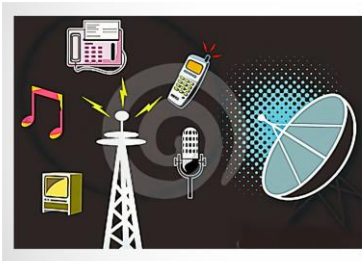
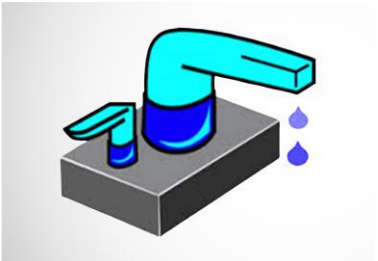
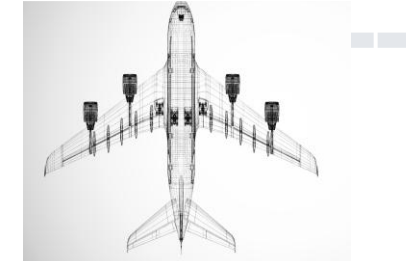
DIE CASTING DIES & MOULDS

Precision-Engineered Solutions for High-Performance Casting: We specialize in the design, manufacturing, and validation of high-pressure, gravity, and low-pressure die casting dies—along with sand core boxes—delivering turnkey tooling solutions from concept to customer-approved trial parts.

Our Capabilities Include:

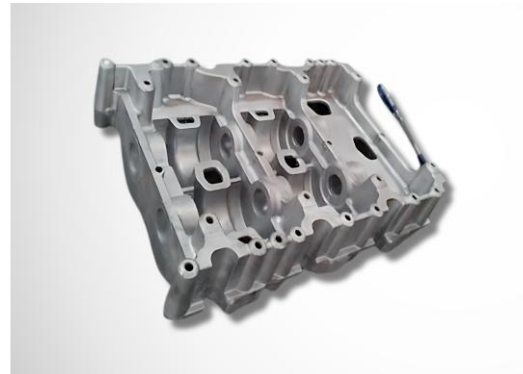
1. **Design & Engineering** of HPDC, GDC, and LPDC dies with advanced CAD/CAM tools and simulation-driven optimization.
2. **Manufacturing** of complex aluminum die casting dies and precision stamping dies using high-end CNC machining.
3. **Sand Core Box Production** for consistent core quality in foundry operations.
4. **Complete Validation Support**, including tool try-outs, modifications, and final buyoff at the customer's plant.
5. **Expertise in Large-Format Dies**, with die sizes up to 2m x 1.5m.
6. **End-to-End Project Handling** from design feasibility to final tool proving and delivery.

We work with Segments Served



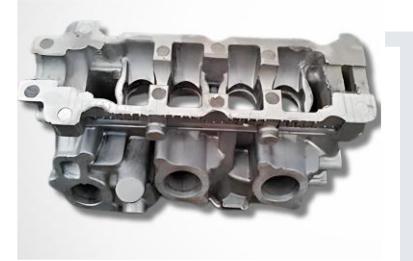
Our Expertise – Past projects, a sample of items produced with our tools:

Aluminum Cast Parts - GDC



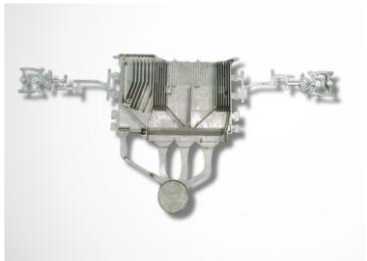
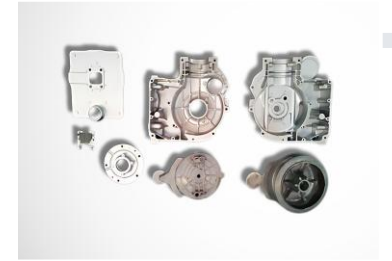
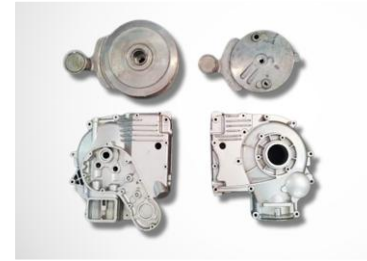
Our Expertise – Past projects, a sample of items produced with our tools:

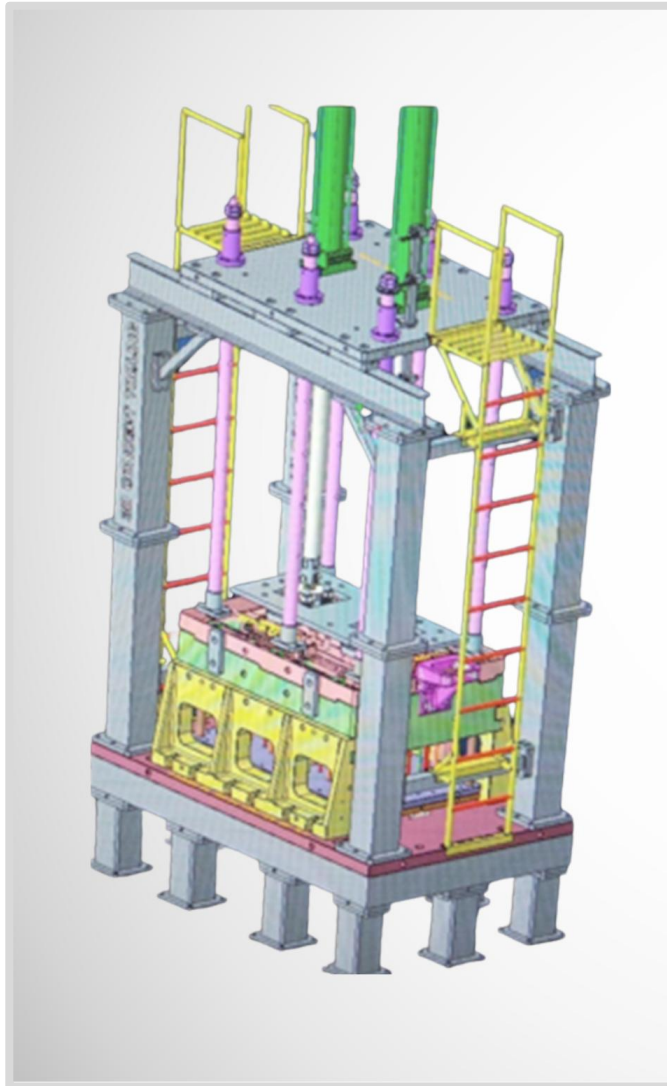
Aluminum Cast Parts - LPDC



Our Expertise – Past projects, a sample of items produced with our tools:

Aluminum Cast Parts - HPDC





GDC die: OIL SUMP for mining Truck

Die Weight: 16 Tonnes

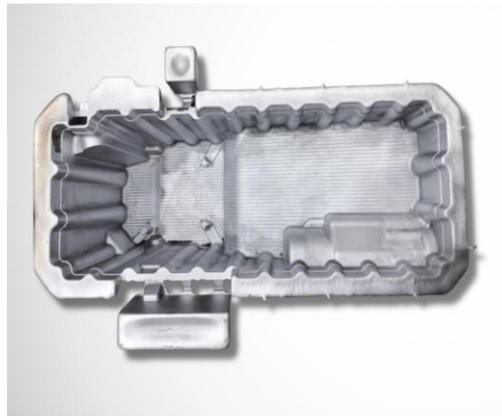
Structure weight: 6 Tonnes

Shot weight : 70 Kgs

Its an end to end solution with die supplied with dedicated GDC machine with PLC control & advanced full hydraulics.

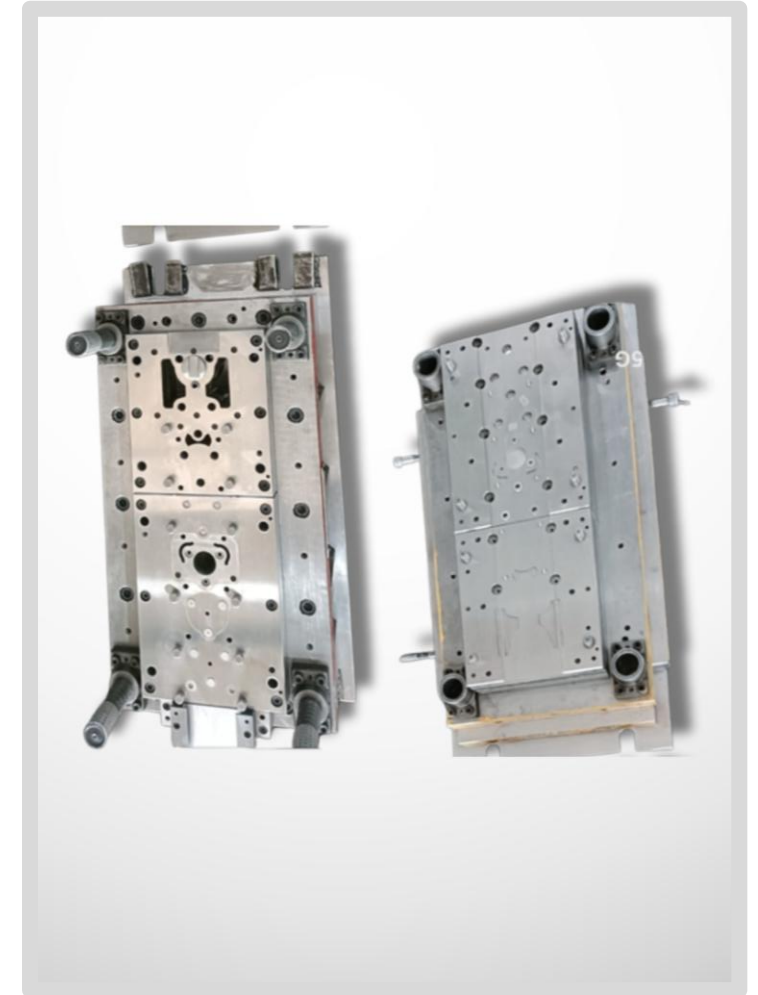
Die is integrated with Robot

Pouring and casting Retraction after ejection cycle.



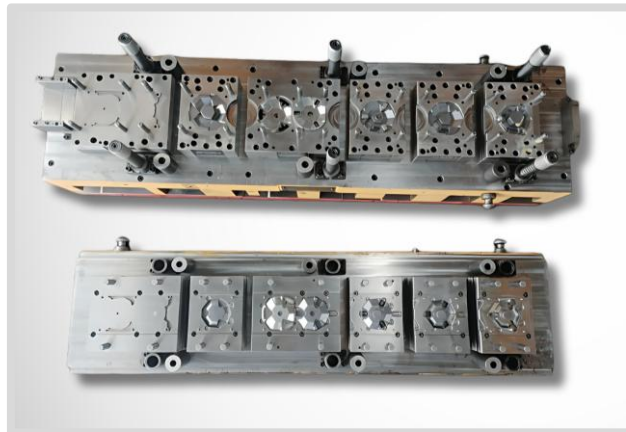
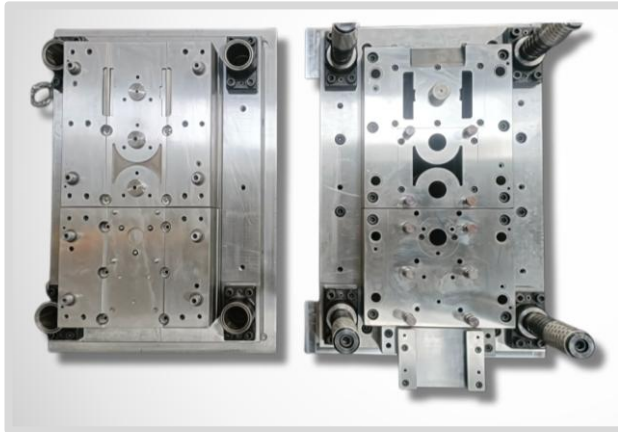
Our Expertise – Past projects, a sample of items produced with our tools:

Stamping Sheet Metal Dies



Our Expertise – Past projects, a sample of items produced with our tools:

13 Stage Progressive Stamping Die



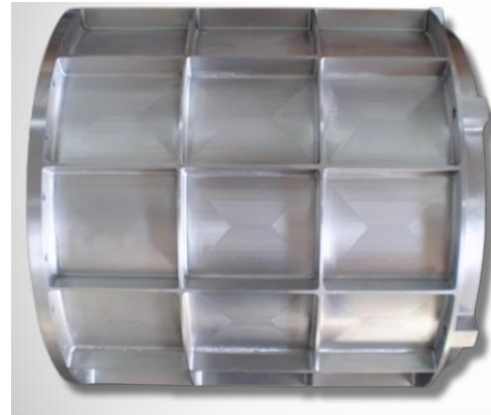
Our Expertise – Past projects, a sample of items produced with our tools: Pattern Making



Our Expertise – Past projects, a sample of items produced with our tools:

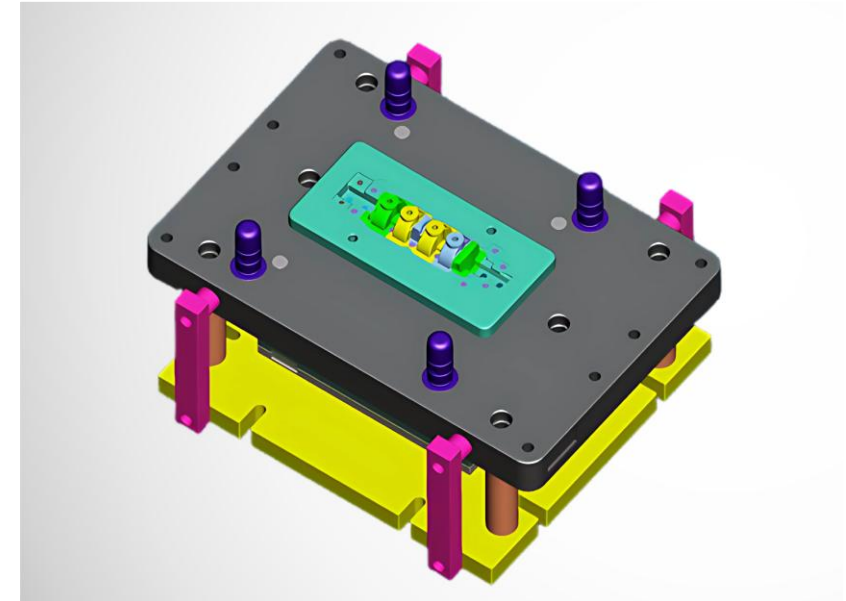
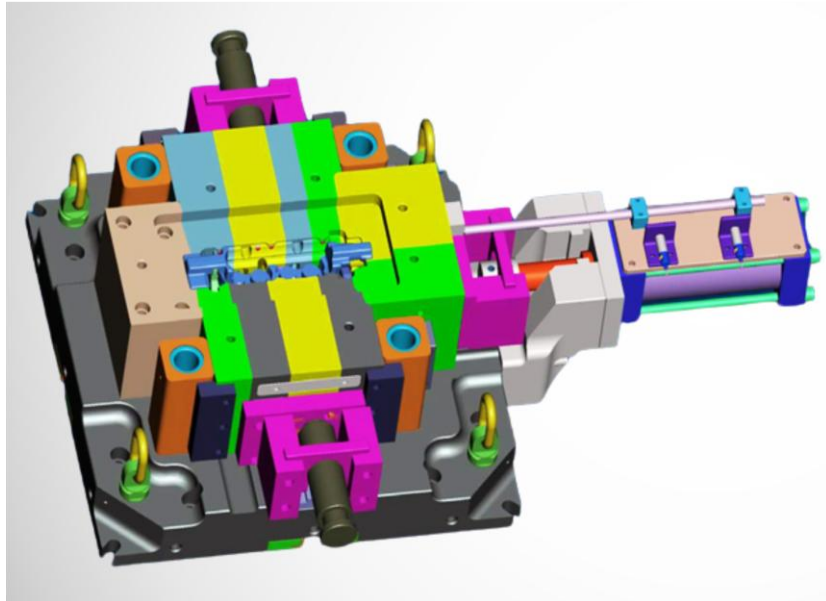
Precision Machining - Machined out of Solid Bar Stock

- **Aluminium Cast Parts**
 - ✓ HPDC, LPDC and GDC Aluminum cast parts
 - ✓ HPDC from 60 T to 1000 T
 - ✓ LPDC components up to 1m x 1m
 - ✓ GDC up to 200 kg
- **Precision Machining:** Automotive Electrical Healthcare Power Tools & Electronics



Our Expertise – Past projects, a sample of items produced with our tools:

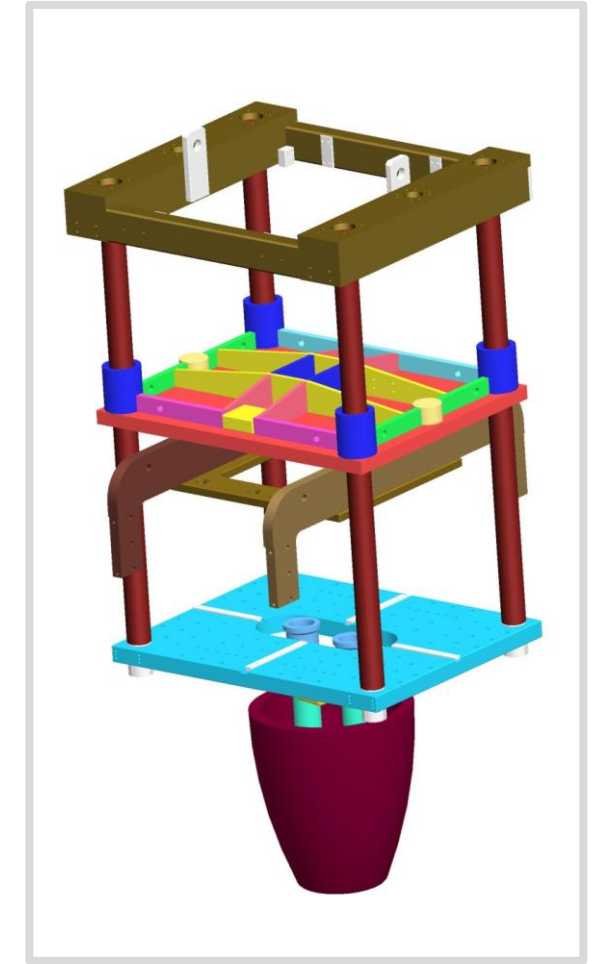
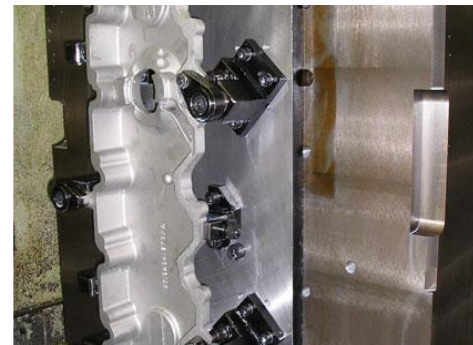
Die Cast Designs



Our Expertise – Past projects, a sample of items produced with our tools:

Fixture Design

- Design of hydraulic, pneumatic and custom jigs and fixtures
- Common applications
 - ✓ Part holding for CNC machines
 - ✓ fixtures for CMM
 - ✓ Welding fixtures
 - ✓ Drilling, grinding, milling and gear cutting
 - ✓ Toggle clamping systems



Our Expertise – Past projects, a sample of items produced with our tools:

Rapid Prototyping

- ✓ Quick turnaround.
- ✓ RP of metal and plastic parts.
- ✓ Proto-die for cast parts & plastic parts.
- ✓ Prototypes, pattern, tooling and cast parts.
- ✓ High quality, accuracy, precision and timely delivery.
- ✓ Latest equipment for scanning, digitizing, modification.
- ✓ Re-engineering customer requirements.

We employ experts and utilise professional software for die design, Simulation. We design more complex shapes calling on more than two decades experience in die design, which allows us to present our customers with professionally processed and affordable solutions according to their requirements.



Infra-structure Setup

Shop 1

Machine shop - Vertical Machining center / Grinding / Die sinking (EDM) / Conventional / Inspection / Assembly

- ✓ **SHOP FLOOR:** State-of-the-Art Infrastructure: **10000 Sq. ft.** of fully equipped shopfloor.
- ✓ **TECHNOLOGY:** Our advanced programming team are equipped with **high-speed PCs and next-gen software** for rapid, precise CNC program processing, ensuring efficiency without delays.
- ✓ **EFFICIENCY:** 24-hour full plant UPS backup and **CUMMINS 160KVA** Diesel Generator Systems, designed to ensure uninterrupted operations and peak performance, no matter the power challenges.
- ✓ **LOGISTICS & MATERIAL HANDLING:** Spacious shopfloor, designed to accommodate seamless vehicle access for smooth in-and-out ensuring efficient raw material handling especial large components. **12 Tons Capacity** Overhead hoist crane—designed to efficiently handle and position large equipment, these cranes ensure quick, precise, and safe machining operations.
- ✓ **SECURITY & SURVEILLANCE:** Round-the-clock **CCTV surveillance, biometric access control, and a 24-hour manned security gate** ensure maximum traceability, confidentiality, and protection against unauthorized access and material movement.

Infra-structure Setup

Shop 2

Machine shop - Vertical Machining center / Grinding / Die sinking (EDM) / Conventional / Inspection / Assembly

- ✓ **SHOP FLOOR:** State-of-the-Art Infrastructure: **7500 Sq. ft.** of fully equipped shopfloor.
- ✓ **TECHNOLOGY:** Our advanced programming team are equipped with **high-speed PCs and next-gen software** for rapid, precise CNC program processing, ensuring efficiency without delays.
- ✓ **EFFICIENCY:** 24-hour full plant UPS backup and Diesel Generator Systems, designed to ensure uninterrupted operations and peak performance, no matter the power challenges.
- ✓ **LOGISTICS & MATERIAL HANDLING:** Spacious shopfloor, designed to accommodate seamless vehicle access for smooth in-and-out ensuring efficient raw material handling especial large components. **Two overhead hoist cranes—5 and 8 tonnes each**—designed to efficiently handle and position large equipment, these cranes ensure quick, precise, and safe machining operations.
- ✓ **SECURITY & SURVEILLANCE:** Round-the-clock **CCTV surveillance, biometric access control, and a 24-hour manned security gate** ensure maximum traceability, confidentiality, and protection against unauthorized access and material movement.

Manufacturing Capability

Shop 1

TOOL ROOM MACHINES – P1

Vertical Machining Centre

No.	Machines	X Y Z Traverse	Spindle rpm	Description
1	TAKUMI H12E	1250 × 950 × 580 mm	15000	Compact High Speed High Precision
2	US WHEELER LM-2518	2500 × 1800 × 1000 mm	8000	Double-Column Machining Centre
3	US WHEELER EM-1300B	1300 × 700 × 700 mm	10000	Box Way Rigid C Frame Machining centre
4	TAKUMI H16	1000 x 600 x 700 mm	20000	Compact High Speed High Precision
5	MAKINO PS95	920 × 510 × 460 mm	15000	High Speed C Frame Machining Centre
6	CHEVALIER EM-2040L	1,020 / 530 / 510 mm	10000	High performance Machining Centre
8	TAKUMI V12	1200 × 660 × 610 mm	10000	C Frame Machining Centre
9	DECKEL MAHO 103V	1000 × 600 × 600 mm	10000	C Frame Machining Centre

Manufacturing Capability

Shop 1

TOOL ROOM MACHINES – P2

CNC & ZNC Electric Discharge Machine Sparking & Wire-cut

No.	Machines	X Y Z Traverse	Description
1	MIRRORDICK AM130R	1200 × 600 × 450 mm	High Speed High Precision TWIN-Head
2	OSCARMAX S1510	1500 × 1000 × 600 mm	High performance ZNC
3	OSCARMAX S550	500 × 400 × 350 mm	High performance ZNC
4	OSCARMAX S550	500 × 400 × 350 mm	High performance ZNC
5	OSCARMAX S550	500 × 400 × 350 mm	High performance ZNC

CNC Vertical Turning Lathe

1	NEWAY CNC VTL	Chuck 1000mm	
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CNC Surface Grinding

1	Freeport CNC Surface Grinder		Double-Column Surface Grinding
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Manufacturing Capability

Shop 1

TOOL ROOM MACHINES – P3

Conventional Machines

No.	Machines	Specification	Description
1	Esteem Radial Drilling machine	Ø60 mm	
2	Esteem DRO Milling		
3	Manford DRO Milling		
4	OERLIKON KC4 CNC Jig Boring		
5.	Mori Seiki Radial Drilling		

Standard Room / Inspection Capabilities

1	FARO Quantum	E2.5m 7 axis & MMT	
2	Mitutoyo CMM		
3	Inspection Tables		
4	Multi-Gauge Systems		



TAKUMI



DECKEL MAHO



CHEVALIER



US WHEELER - DC



US WHEELEROKK



MAKINOTitle



FREEPART SURFACE GRINDER



OSCARMAX ZNC EDM



SUZHOU BAOMA WIRECUT EDM



MIRRORDICK CNC EDM



CNC VTL

Advanced EDM (CNC & ZNC),
Wire-cut, Surface Grinder, and
CNC VTL Machines.



MITUTOYO CMM



MANFORD MILLING



ESTEAM RADIAL DRILLING



FARO



ESTEAM DRO MILLING



MORI SEIKI RADIAL DRILLING

"Equipped with advanced Conventional Radial Drilling, DRO Milling, High-Precision CMM, and Faro ARM systems to ensure accurate and efficient machining and inspection processes."

Manufacturing Capability

Shop 2

TOOL ROOM MACHINES – P1

Vertical Machining Centre

No.	Machines	X Y Z Traverse	Spindle rpm	Description
1	YCM	1000 × 600 × 600 mm	15000	C Fram High Rigid Machining Centre
2	US WHEELER LM-2518	2500 × 1800 × 1000 mm	8000	Double-Column Machining Centre
3	AWEA 3021 – Gear Driven	3000 x 2100 x 760 mm	6000	Heavy Duty Double Column Machining Center
4	BAOFENG 1613L	1600 x 1400 x 600	12000	Heavy Duty Double Column Machining Center
5	RADIAL DRILLING			



TAKUMI



DECKEL MAHO



CHEVALIER



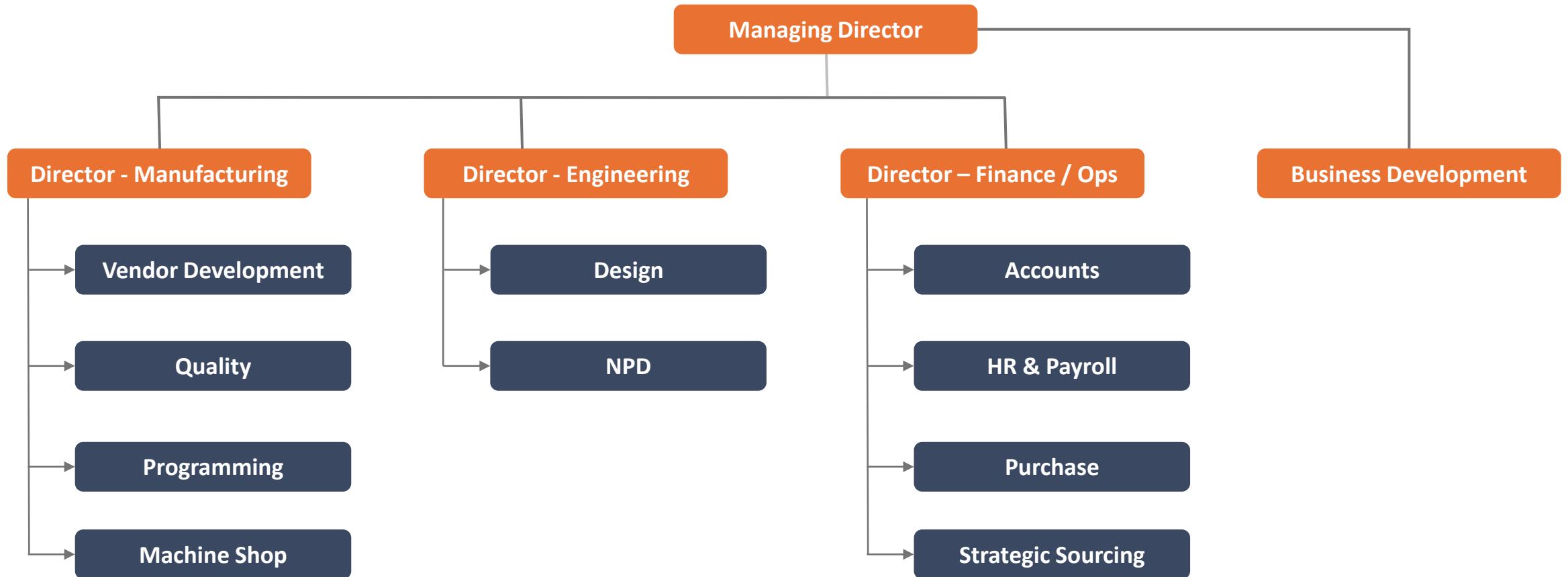
US WHEELER - DC



US WHEELEROKK

Organizational Structure

Hierarchy and Functional Alignment



Softwares in our Design

Harnessing Cutting-Edge Software and Technology



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