Technical Review on Automotive Components Cluster at Chennai

E. Bhaskaran[1], Harikumar Pallathadka[2], S.Baskara Sethupathy[3]
[1]*Doctor of Science Scholar, Mechanical Engineering, Manipur International University, Manipur, India*
[2]*Vice Chancellor, Manipur International University, Manipur, India.*
[3]*Professor and Head, Automobile Engineering, Velammal Engineering College, Chennai, India.*

***Abstract*—Chennai Incubation Technology Centre registered under Section 8 of Companies Act, 2013 contains 40 SPV members where Common Facility Centre is created for precision manufacturing components. The objective is to review the performance of 10 members who are using the CFC for precision manufacturing. The methodology adopted is collection of secondary data from websites. To conclude, eventhough the members are having CNC, VMC, grinding machines etc for getting precision orders they have to depend on CFC with less cost of design, produce high precision components and testing.**

***Index Terms*—Common Facility Centre, design, production and testing,**

I. INTRODUCTION

Operational Framework of the Common Facility Centre (CFC) project will be executed by a Special Purpose Vehicle (SPV) named "Chennai Incubation Tech Centre", registered under Section 8 of the Companies Act, 2013 incorporated on January 29, 2022, with its registered office at Plot No: PP3, SIDCO Industrial Estate, Thirumudivakkam, Chennai.

Roles & Responsibilities of the SPV:

Project Execution & Management – Conceptualize, formulate, secure financial closure, implement, and manage the required infrastructure.

Grant Disbursement – Obtain final approval for the disbursement of the Government of Tamil Nadu's Grant-in-Aid.

Regulatory Compliance – Secure all necessary statutory approvals and clearances for the project.

Infrastructure Development – Procure or lease land and develop the necessary infrastructure.

Connectivity & Access – Ensure adequate external access and supporting infrastructure for smooth project operations.

Marketing & Outreach – Undertake promotional activities to enhance awareness among enterprises within the cluster.

Financial Sustainability – Maintain facilities through service and user charges to establish a self-sustaining revenue model.

Enterprise Support – Ensure that the facilities created under this initiative benefit the maximum number of existing and prospective enterprises.

The objective is to review the performance of 10 members who are using the CFC for precision manufacturing. The methodology adopted is collection of secondary data from websites. At present 40 members are in the SPV and the equity structure undergo changes when user enterprises join the SPV at a later date and the lists of current members are given hereunder:

II. LITERATURE SURVEY

1. GTS Tools Plast LLP:

GTS, an ISO 9001-certified company, was established in Chennai in 2012 by two Indian engineers specializing in mould development, mould manufacturing, plastic processing, and injection moulding. Strategically located in the SIDCO Industrial Estate, Thirumudivakkam, near both air and sea ports, GTS is dedicated to delivering high-quality precision plastic injection moulds and plastic solutions to its customers—on time, every time. The company boasts a state-of-the-art tool room equipped with advanced CNC machines, EDM, and CAD/CAM (UG NX) technology, supported by a highly qualified technical team from CIPET and

NTTF with extensive industry experience. They are specialised on High Precision Mould Manufacturing, Mould components, design services, mould maintenance and injection moulding as shown in Figure 1.

Figure 1: Products manufactured by GTS

GTS Tool Plast are Compliance to requirements, Confirming Global Quality Standards, Experienced Tool Design using Siemens NX and Mould Making Engineers, State of Art Tool Manufacturing Facilities with latest CNC machines, Project execution thro Effective Project Management Tools. (Gate Review & APQP, PPAP), Plastics and Sheet Metal tooling supports at One Roof and Global Supplier Service at door step so no overseas travels for project Review, Tryouts etc. GTS got ISO 9001: 2015 for the scope of design and manufacture of moulds and dies, Rane TRW for commendable new product development support and Skoch order of merit certificate on India's Best MSMEs and Top 100 SMEs in India. Total Number of Employees is upto 10 People. Annual Turnover is Rs.1.5 - 5 Cr. [1]

2. Flowwell Castings Pvt Ltd:

Established in 2002, Flowwell Castings Pvt Ltd is located in a well-developed industrial estate near Chennai. Over the years, the company has grown into a leading manufacturer and supplier of high-pressure aluminum die-casting and precision-machined components. Led by a team of professionally trained managers and engineers, Flowwell Castings prioritizes customer satisfaction and continuously adapts to evolving industry demands. The team upholds strict quality control measures at every stage of production, ensuring that only defect-free products are delivered to customers.

Quality Commitment: Flowwell Castings places the highest priority on quality, with no compromises. The company operates a state-of-the-art quality standards room equipped with high-precision instruments, including coordinate measuring machines (CMM), video measuring machines, and spectrometers. These advanced tools are managed by highly skilled and trained engineers to guarantee top-tier quality and strict dimensional accuracy before dispatch. The company's commitment to quality is reinforced by its ISO/TS 16949 certification and the SQ Mark certification from Hyundai Motors India Ltd**. Valued** Customers: Flowwell Castings serves a diverse range of industries, supplying components to leading customers, including: Lucas TVS, Bonfiglioli, Manatek, Onegene, Myunghwa, Rotork, SMR, Magal Engineering, Western Thomson (India) Limited, Dynamic Technologies, Rane, Minda, Motonic and Rass

Product Portfolio: Flowwell Castings specializes in manufacturing a variety of precision components, including: Alternator Brackets, Reduction Gearbox Parts, Thermostat Housings, Valve Actuator Parts, Wiper Motor Gearbox, Foot Covers, Radio Covers, Starter Motor Brackets, Side Mirrors and Water Pumps as shown in figure 2.

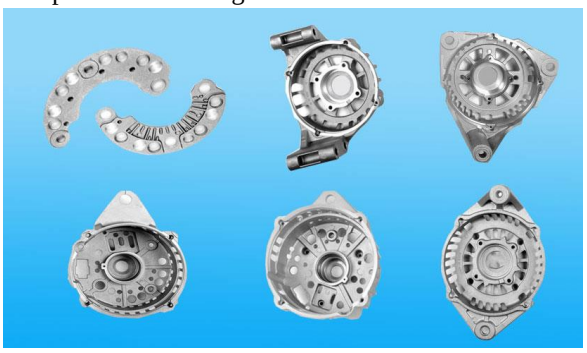

Figure 2: Products manufactured by Flowwell Castings Pvt Ltd

Manufacturing Facilities: Flowwell Castings is equipped with high-pressure die-casting machines ranging from 120T to 420T, covering a wide spectrum of product designs. To ensure high-precision machining, the company utilizes advanced equipment, including: Vertical Machining Centers (VMC), CNC Drill-Tap Centers and CNC Turning Machines. These machines are operated by a team of well-trained and experienced technicians who uphold strict quality control measures to maintain precision

and meet Geometric Dimensioning and Tolerancing (GD&T) standards.

With a strong commitment to quality, technology, and customer satisfaction, Flowwell Castings Pvt Ltd continues to be a trusted partner for high-precision aluminum die-casting solutions. It has got IATF 16949 QMS certification on Manufacture of Aluminium Pressure Die Cast Parts and Machined Parts for Automotive Industries and SQ certificate for outstanding performance in the QMS Evaluation and KAIZEN certificate from ACMA. It is a limited company with annual turnover of Rs.25-100 cr. [2]

3. Wintech Polysol Pvt Ltd: Wintech Polysol Pvt. Ltd. was founded by a team of like-minded technocrats and business professionals to bridge the gap between industry demands and cost-effective polymer solutions. As the name suggests, "Wintech POLYSOL" represents Winning Technologies + Polymer Solutions. The team comprises highly experienced polymer engineers, technocrats, and specialists with an average industry experience of over 25 years. Established on May 3, 2017, Wintech Polysol Pvt. Ltd. is committed to delivering high-quality polymer solutions tailored to industry needs.

The Mission: Aim to work closely with customers, offering standard products while also developing value-added custom polymeric compounds. Goal is to manufacture performance-enhanced parts and components that provide techno-commercial advantages to clients. Through these specialized materials, they strive to enhance efficiency, durability, and overall performance for various industrial applications.

Vision: They are dedicated to achieving mission by operating through four core business verticals:

1. Raw Material Distribution – Providing high-quality raw materials sourced from global leaders.
2. Custom Compounds – Developing tailor-made polymeric compounds for specific applications.
3. Stock Shapes & Machined Parts – Offering pre-fabricated polymer stock and precision-machined components.
4. Specialty Parts (Lubripol™) – Engineering high-performance polymer-based parts for superior durability and reduced maintenance.

Additionally, they are committed to enabling "concept to commercialization" possibilities in polymers and thermoplastic elastomers, empowering customers to develop innovative solutions across various industries—from automotive to consumer goods. By replacing traditional materials with Wintech specialty materials, help industries achieve superior performance and sustainability.

Lubripol™ products are the result of years of research and development. They offer exceptional wear resistance and durability, making them ideal replacements for traditional metal bearings in various applications.

At Wintech Polysol, customers choose a product based on quality, reliability, and performance. However, long-term partnerships are built on trust, values, and a shared vision for success. This distinction between simple transactions and meaningful business relationships is at the heart of everything. The figure 3, explains in detail.

Figure 3: Products Manufactured

Future Outlook: Wintech Polysol aims to continue expanding its capabilities by introducing super-specialty materials such as:

- Polyimides, Bismaleimides, PEEK, and Poly Ketones
- Long Fiber-Filled Thermoplastics
- Tribologically Modified Compounds for extreme wear and friction resistance

long-term strategy includes building a state-of-the-art infrastructure and assembling a highly skilled team with strong domain expertise. This will enable to provide high-value polymer solutions and stay at the forefront of industry innovation. [3]

4. Motherland Garments:

In 1995, three young Textile Chemistry graduates, along with a Mechanical Engineer, embarked on a journey to establish a small garment processing unit. Operating from a modest makeshift shed, they started with a capacity of just 1,000 garments per day. With relentless dedication and a strong commitment to quality, they nurtured the unit into a trusted name in the industry.

Today, the company has expanded significantly, with multiple strategically located units in Bangalore and Chennai. Recognized as a reliable service provider, it caters to all garment processing needs with excellence and precision.

Management: The first three directors are Textile Chemistry graduates with deep industry expertise, collectively overseeing business operations. A professional safety auditor, serves as a guiding force in ensuring best practices and sustainability across all endeavors.

*Unit Capacity***:** From its humble beginnings in 1995, processing 1,000 garments per day, the company has grown exponentially. Today, with four fully operational units in Bangalore and Chennai, it serves leading garment exporters and domestic brands, handling an impressive 60,000 garments per day as per figure 4.

Figure 4: G2, the first laundry machinery

Sustainability Commitment: The company is committed to eco-friendly garment processing. It utilizes G2, the first laundry machinery certified as ecological, ensuring sustainable and environmentally responsible operations. [4]

5. Ponmani Engineers Private Limited

Founded in 2003, Ponmani Engineers Private Limited began its journey as a supplier of cutting tools. Over time, the company expanded its capabilities, venturing into the manufacturing of automobile and general engineering components using advanced CNC machining**.**

At the helm of Ponmani Engineers is a seasoned technocrat with over 15 years of extensive experience in the manufacturing sector. Under his leadership, the company has built a strong reputation for quality, innovation, and customer satisfaction.

Commitment to Excellence: Ponmani Engineers thrives on a foundation of continuous innovation and close customer collaboration, allowing to stay ahead in a competitive market. Over the past five years, they have not only kept pace with industry advancements but also set exemplary standards in quality, precision, and on-time delivery. Equipped with state-of-the-art CNC machines, precision tools, and advanced measuring systems, they ensure that our customers receive the best in quality, reliability, and cost-effectiveness.

Workforce: The Driving Force: At Ponmani, they recognize that greatest asset is workforce. Foster a dynamic and highly motivated team, continuously investing in skill enhancement and training programs. Employees are regularly exposed to cutting-edge manufacturing techniques, ensuring that remain at the forefront of industry advancements.

Commitment to people is a core principle at Ponmani. prioritize their growth, development, and well-being, fostering a workplace culture that drives innovation and excellence.

Trusted by Customers Worldwide: Today, Ponmani Engineers enjoys ‘single-source’ supplier status with many of its customers, both in India and internationally. Dedication to quality and customer satisfaction has solidified long-term partnerships across various industries**.** With a vision for continuous growth and technological excellence, Ponmani Engineers is committed to delivering world-class solutions in the automotive and general engineering sectors as per figure 5.

Figure 5: Automobile Products

Vision: To establish an international-standard CNC machining facility and become a leading supplier of CNC-machined components for the automobile, electrical, and allied industries in Chennai.

Mission: Ponmani Engineers, mission is to be a top precision component manufacturer in Chennai by delivering high-quality products and exceptional services to our customers.

- Foster a positive and growth-oriented work environment, enabling employees to excel both personally and professionally.

- Expand into diverse markets to ensure business stability and financial growth.

Quality Policy: Ponmani Engineers is an ISO 9001:2008-certified company, accredited by TÜV in June 2011, committed to manufacturing and delivering superior-quality products that meet and exceed customer expectations.

Quality Objectives & Strategies

- Ensure first-time-right production and maintain consistent quality.
- Integrate robust systems and procedures to build quality into every product.
- Continuously enhance manufacturing processes and adopt advanced technologies.
- Invest in employee training and engagement to cultivate a culture of quality.
- Prioritize on-time delivery and cost-effective solutions to maximize customer satisfaction.

Milestones

- 2003 – Established as a proprietary firm for cutting tool marketing.
- 2004 – Launched manufacturing operations.
- 2005 – Achieved ISO 9000 certification.
- 2006 – Began supplying to multinational corporations (MNCs) in India.
- 2008 – Converted into a Private Limited Company.
- 2021 – Relocated to new state-of-the-art facility. [5]

6. Fine Tech Engineering:

Founded in 1996 by a team of technocrats, Fine Tech began with a vision to become a market leader in fabricated parts and accessories for industrial heat treatment furnace consumable spares. In 2010, expanded their capabilities to manufacture a wide range of refractory anchors catering to industries such as steel, cement, refineries, and power plants, serving both new projects and maintenance requirements. By 2017, further diversified expertise by venturing into the design and manufacturing of heat treatment furnaces and ovens. Over the past two decades, commitment to quality and teamwork has driven sustained growth and success.

***Vision*:** To be a market leader in the manufacturing of industrial furnaces, accessories, and refractory anchors, while becoming the preferred choice for customers.

Mission: At Fine Tech, strive to set new benchmarks in industrial furnace manufacturing by combining precision engineering with high-quality, sustainable solutions.

- Deliver customized, high-performance products tailored to customer requirements.
- Ensure excellence through teamwork, dedication, and innovation.
- Reinforce brand value by consistently exceeding customer expectations.

With a strong foundation of technical expertise and unwavering commitment, they continue to evolve and drive progress in the industry as per figure 6. .[6]

Figure 6: Performance

7. IPL Products

Electrifying Innovation, Powering Lives: Over 50 Years of Excellence in the Power Sector and their journey began in 1974 with the manufacturing of Cast Iron Jointing Kits. Over the decades, they have consistently evolved, expanding offerings to meet the growing demands of the electrical industry.

- 1982 – Partnered with TNEB to develop Open Type Pillar Boxes.
- 1986 – Ventured into 11KV Isolators (A.B. Switches) manufacturing.
- 1992 – Established a high-voltage isolator manufacturing facility up to 230KV.
- 1996 – Expanded into the production of Distribution Transformers.
- 2006 –Group concern entered the Power Transformers segment, strengthening presence in the transformer industry.
- 2011 – Ranked among the Top 5 Power Transformer Manufacturers in Tamil Nadu for units up to 25 MVA (110KV/132KV Class).
- 2014 – Formed a Joint Venture with Jean Muller, Germany.

- 2017 – Achieved BIS (Bureau of Indian Standards) approval with ISI marking.
- 2021 – Expanded into Dry Type Transformers, Unitized Substations, and Solar Transformers, commissioning 300 MW and scaling production.
- 2022 – Constructed a new plant in Kakkalur for 400KV Isolators development.
- 2023 – Successfully completed design and type testing of 400KV Isolators.
- 2024 – Advancing the design of 400KV Centre Break Isolators.

Product Portfolio

Transformers: Static electrical devices designed to transfer voltage and current between circuits via electromagnetic induction, maintaining frequency.

Types of Transformers:

- Power Transformers – Up to 25 MVA
- Energy-Efficient Distribution Transformers – Compliant with BIS Standards
- Converter Duty Transformers
- Windmill Transformers
- Inverter Duty Transformers
- Furnace Transformers
- Special Purpose Transformers
- Dry-Type Transformers
- Lighting Transformers

Key Features:

✓ Higher Efficiency

✓ Robust Design

✓ High Reliability

✓ Easy Maintenance

Isolators: High-voltage Air Brake Switches (Disconnectors) that control power flow between circuits.

Types of Isolators:

1. Single Break
2. Rotary Switch
3. Vertical Break
4. Double Break
5. Centre Break

Key Features:

✓ Fully Type-Tested

✓ High Contact Pressure

✓ Negligible Maintenance

✓ Long Electrical & Mechanical Life

✓ High Reliability

Feeder Pillar Boxes

Durable and weather-resistant enclosures designed for electrical distribution systems, ensuring circuit protection with HRC (High Rupturing Capacity) fuses or circuit breakers.

Types of Feeder Pillar Boxes:

- HRC Mini Pillar Box
- 4-Way HRC Pillar Box
- 6-Way HRC Pillar Box
- 8-Way HRC Pillar Box
- 8-Way HRC Pillar Box with Bus Coupler
- Conventional Mini Feeder Pillar Box
- 4-Way Conventional Feeder Pillar Box
- 6-Way Conventional Feeder Pillar Box

Commitment to Quality & Reliability

🔹 ISO 9001:2015 Certified – Ensuring world-class quality standards.

🔹 NABL Recognized Labs – Guaranteeing product dependability through rigorous testing.

🔹 Rapid Support – A dedicated service team ensures assistance and backup equipment within 48 hours.

🔹 Custom Solutions – In-house design and fabrication allow us to develop tailored solutions for diverse industry needs.

Vision: I.P.L. Products**,** are committed to providing high-quality electrical solutions, competitively priced with superior services that exceed customer expectations. Our focus is on:

✅ Integrity – Building trust through transparency and honesty.

✅ Sustainability – Encouraging alternative energy solutions.

✅ Well-being – Promoting safety, health, and environmental responsibility.

Our Mission:

✓ Deliver on our commitments with excellence.

✓ Provide top-tier customer service and expert guidance.

✓ Ensure safe, efficient, and cost-effective electrical solutions for all clients.

With over 50 years of industry expertise**,** they continue to drive innovation, reliability, and customer satisfaction in the electrical equipment sector**.** Figure 7 gives the Isolators**;** Figure 8 exposes the Transformers and Figure 9 reveals the Pillar Boxes

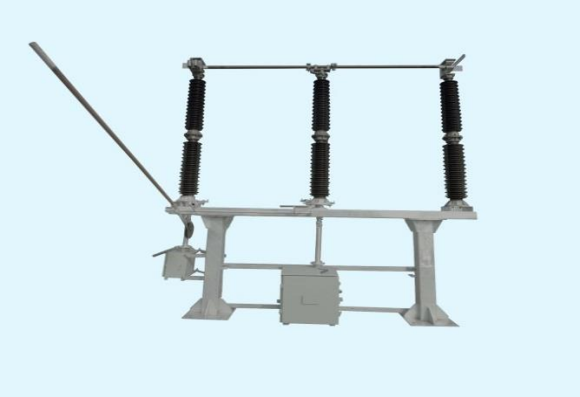

Figure **7:** Isolators

Figure 8: Transformers**:**

Figure 9: Pillar Boxes

8. Hi Precision Tools & Dies 173 & 174, SIDCO Industrial Estate, Thirumudivakkam, Ch-132

Hi-Precision Tools & Dies – Excellence in Manufacturing Since 1989

Hi-Precision Tools & Dies is a leading manufacturer specializing in precision components for the automotive industry**.** Established on June 6, 1989**,** the company has over 35 years of expertise in delivering high-quality sheet metal, DNC metal, iron, steel, and iron ore components. They have 3 employees with annual turnover of Rs. 5 to 25 crores.

Core Business Activities

Hi-Precision Tools & Dies specializes in manufacturing diverse parts and accessories for motor vehicles**,** including:

✓ Brakes
✓ Gearboxes
✓ Axles
✓ Road Wheels
✓ Suspension Systems
✓ Shock Absorbers
✓ Radiators
✓ Silencers & Exhaust Pipes
✓ Catalytic Converters
✓ Clutches
✓ Steering Systems

With a strong foundation in precision engineering, Hi-Precision Tools & Dies continues to innovate and expand its capabilities to meet the evolving demands of the automotive and manufacturing industries.

9. Microtech Engineers: Microtech Engineers – Precision, Innovation & Excellence in Plastics Engineering

Established in 1994**,** Microtech Engineers **is** a leading manufacturer **of** Plastic Injection Moulds, Components, and Machined Parts**.** An ISO 9001:2015, IATF 16949, and SQ Mark Certified company, known for delivering high-quality precision-engineered plastic components across industries.

Microtech Engineers was founded by graduates of CIPET Chennai, India's premier institute for plastics technology. With over 40 years of expertise, they have been instrumental in driving innovation in plastic injection mould design, manufacturing, and production**.**

Journey & Milestones

- 1994 – Microtech Engineers was established, specializing in plastic injection mould manufacturing**.**
- 2008 – Achieved ISO 9001:2008 Certification**.**
- 2009 – Added Makino CNC machines to enhance production capabilities.
- 2010 – Expanded operations with the addition of injection molding machines**.**
- 2011-2013 – Began mass production for the automotive industry (L&P & PHA).
- 2014 – Achieved TS 16949:2009 Certification**.**
- 2015 – Obtained HMI SQ Mark Certification**.**
- 2016 – Expanded tooling and molding capabilities with new machinery.
- 2017-2018 – Joined ACMA-UNIDO Cluster and achieved IATF 16949 Certification**.**

- 2024 – Launched Unit-2 at SIPCOT Pillaipakkam, Tamil Nadu to support growing operations.

Products & Capabilities

Specialize in manufacturing custom plastic injection moulds and precision components for a wide range of industries, including automotive, medical, electrical, and consumer appliances.

Product Portfolio

High-Volume Production Components

✓ Valve Components

✓ Electrical Switches

✓ Irrigation Components

✓ Medical Components

✓ Automobile Components

✓ Caps & Closures

High-Precision Components

✓ Automobile Connectors

✓ Bulb Sockets

✓ Printer Components

✓ Carburetor Components

Services

Offer a complete range of reengineering and reverse engineering solutions for precision injection moulds and pressure die casting (PDC) components used in automobiles, medical equipment, electronics, and electrical products.

✓ 3D Modeling & CAD/CAM

✓ Reverse Engineering

✓ Tool & Die Design

✓ Mould Flow Analysis

✓ Rapid Prototyping & Tooling

✓ Plastic Processing

Advanced Manufacturing Infrastructure

Employ cutting-edge CNC machines, EDM wire cut machines, surface grinding, and vertical machining centers for high-precision production. Makino, Mitsubishi, and Waida machines ensure superior quality and accuracy in all our products.

Quality Assurance & Certifications

They prioritize quality through rigorous testing in state-of-the-art quality control center, equipped with:

✓ MITUTOYO Co-ordinate Measuring Machines

✓ Rockwell Hardness Testing Machines

✓ Melt Flow Index Machines

✓ Advanced Video Measurement Systems

Certifications

✅ ISO 9001:2015 Certified

✅ IATF 16949 Certified

✅ SQ Mark Certified

Commitment to Excellence

At Microtech Engineers, they are committed to **on-**time delivery, competitive pricing, and continuous improvement. By fostering a customer-centric approach**,** ensure superior precision, reliability, and innovation in every project.

ABOUT MICROTECH ENGINEERS

Microtech Engineers is one of the leading Manufacturer of Plastic Injection Moulds, Components

Automobile Components

Figure 10: Automobile Components

10. Process Control Valves 12, SIDCO Industrial Estate, Thirumudivakkam, Ch-132

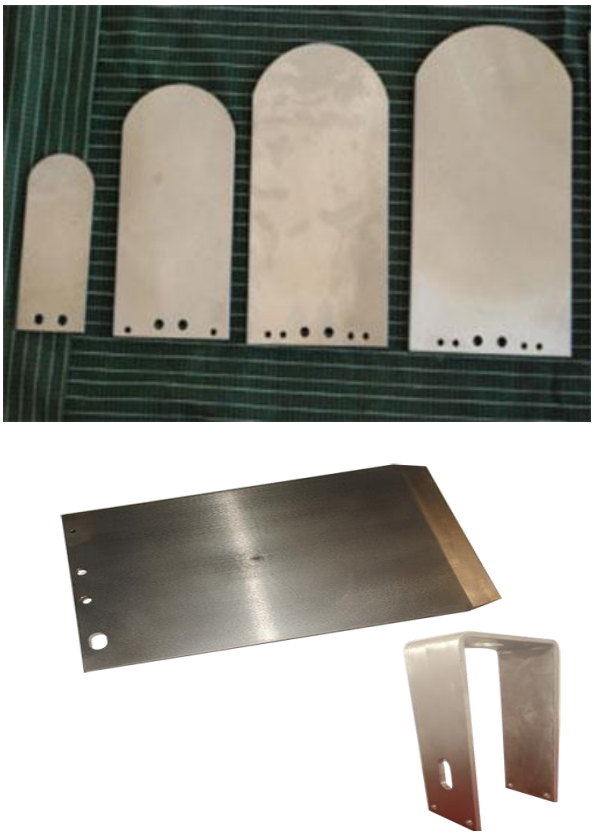

Figure 11: Valve Gate Plates

Gate Plates

Materials like SS 304, SS 316, SS 317, SS 2205, SS 410, 17.4 PH, Hastelloy & Alloy 20 - Knife Gate Valve Gate Plates manufacturing in accordance to the standard / Drawings. Sizes from 2" – 56" as shown in figure 11.

Figure 12: Spare Diaphragm

Spare Diaphragm

Various Rubber Material like Natural, EPDM, Butyl, Nitrile, Neoprene PTFE Teflon, Hypalon and food grade Diaphragms etc,

Suitable for Diaphragm Valves as shown in figure 12.

Valve Size: 15NB - 300NB in Weir Type & 25NB - 200NB in Straight through type Diaphragm Valves.

About PCV India

At PCV India, they believe that progress never stops. As technology advances at an ever-increasing pace, market dynamics shift, and customer expectations evolve, remain steadfast in commitment to innovation, quality, and excellence**.**

Our Mission

Embrace change and challenge to stay ahead of industry trends. Success is driven by a team of highly skilled designers, manufacturing experts, sales engineers, and technicians, working in collaboration with dedicated suppliers to produce some of the world's finest valve components**.**

Commitment to the Future

Industries demand higher quality and more efficient valve solutions**,** continuously enhance technology, processes, and product**s** to meet these evolving needs. PCV India is poised to deliver world-class valve components that exceed global standards while staying personally connected with customers and business partners.

Premier Valve Components & Process Control Solutions

They have a trusted name in valve components, instrumentation, and process control systems in India**,** uncompromising quality standards and a team of highly trained professionals make an industry leader.

Unmatched Expertise & Integrity

Team of qualified and experienced professionals has propelled to the forefront of the industry. Conduct business with integrity, reliability, and exceptional service**,** ensuring customer satisfaction at every stage.

Certifications & Quality Standards

✓ ISO 9001:2015 Certified – Commitment to Quality Management

✓ ISO 14001:2015 Certified – Commitment to Environmental Management

Quality Promise

✅ Customer-Certified Products –Products consistently meet and exceed quality expectations.

✅ Industry-Leading Engineers –Team comprises some of the best-certified engineers in the industry.

At PCV India, they not only just manufacture valve components, they engineer trust, reliability, and excellence**.**

- Trusted partner in precision valve solutions.

III CONCLUSION

Chennai Incubation Technology Centre contains 40 SPV members where Common Facility Centre is created for precision manufacturing components. The the 10 members who are using the CFC for precision manufacturing. To conclude, eventhough the members are having CNC, VMC, grinding machines etc for getting precision orders they have to depend on CFC with less cost of design, produce high precision components and testing to compete in Global Market with cost minimization and profit maximisation.

REFERENCES

[1] http://gtstool.in/index.php assessed on 10.2.25
[2] https://www.flowwellcastings.in/index.html assessed on 10.2.25
[3] http://www.wintechpolysol.com/ assessed on 10.2.25
[4] http://www.motherlandgarments.com/index.html #home assessed on 15.2.25
[5] https://ponmaniengineers.com/contactus.aspx assessed on 15.2.25
[6] https://www.finetechengg.in/services.html assessed on 16.2.25
[7] https://iplproducts.com/ assessed on 17.2.25
[8] https://www.indiamart.com/hi-precisichennai/aboutus.html?srsltid=AfmBOoox zQqb7bElb-9GZj_iEl1lb2LF6SLmqnkTFN-knRI3SF2jxncV assessed on 17.2.25
[9] https://www.microtech5.com/products/ assessed on 17.2.25
[10] https://processcontrolvalves.com/aboutus.php assessed on 17.2.25