



## Technical Review on Automotive Components Manufacturers at Tirumudivakkam Chennai

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### ABSTRACT

Chennai Incubation Technology Centre registered under Section 8 of Companies Act, 2013 contains 40 SPV members where Common Facility Centre on design, product development and testing are created for precision manufacturing components at Tirumudivakkam, Chennai. 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 of 10 manufacturers. To conclude, even though 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. This will lead to minimize the cost of production and maximize their profit and also to compete in the global market with better competitive prices of the automotive components.

Keywords: Terms—Common Facility Centre, design, production and testing,

### 1. 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.

### 2. Review of Automotive Components Manufacturers in Tirumudivakkam

1. Shri Veeralakshmi Electroplaters, established in 1996 in Chennai, Tamil Nadu, is a leading manufacturer specializing in CNC Grinding Machines and Milling Machines. The company offers a wide range of products and services, including CNC Grinding Machines, Milling Machines, Drilling Machines, and Cylindrical Grinding Machines. An ISO 9001:2000 certified company, Shri Veeralakshmi Electroplaters is engaged in manufacturing turned components and electroplating services. With a skilled workforce of 50 employees, the company is equipped with state-of-the-art CNC machines, cylindrical grinding machines, centerless grinding machines, milling machines, center lathes, and drilling machines. [1]

2. Registered in 2005, Precision Die Products, based in Chennai, Tamil Nadu, has established itself as a trusted supplier and trader of precision dies and molds. With extensive expertise in the industry, the company is recognized as a leading provider of high-quality products. Precision Die Products specializes in offering precision dies and molds in bulk, ensuring superior quality and reliable service to its customers as shown in figure 1. [2]

### 3. Excel Die Castings – A Legacy of Excellence in Die Casting

Founded in 1986 as a small foundry, **Excel Die Castings** has grown over the past 40 years into a trusted and recognized leader in the die-casting industry. With a strong commitment to quality, innovation, and customer satisfaction, the company ensures compliance with customer requirements while striving for **zero-defect production**.

Commitment to Quality

At Excel Die Castings, quality is a continuous process that integrates skilled personnel, effective communication, and strict process control. The company ensures that each customer’s need for high-quality die castings is met with **on-time delivery and defect-free products**.

Why Choose Excel Die Castings?

✔ **Advanced Die Flow Simulation & CAE Reports**

✔ **Short Lead Time for Die Making** – 3 to 4 weeks

✔ **Competitive Pricing & High-Quality Dies**

✔ **Robust Manufacturing Process** – Designed to meet or exceed customer performance expectations, minimize time to market, reduce defects (PPM), and optimize cost-efficiency

A Visionary Leadership Founded by, a first-generation entrepreneur, Excel Die Castings flourished under his **hands-on leadership**. His dedication to operations, customer engagement, and business expansion played a pivotal role in the company's rapid growth. Today, **Excel Die Castings is a trusted supplier to the automotive industry in Tamil Nadu**, serving both global and local companies with the same commitment to quality.

Vision: To become the **most reliable and sought-after** supplier of high-quality die-cast products.

Mission: To achieve **operational excellence** through continuous process improvement, waste minimization, and an unwavering pursuit of quality and perfection.

State-of-the-Art Manufacturing Facility

📍 **Total Area:** 14,500 sq. ft.

📍 **Constructed Area:** 14,500 sq. ft.

📍 **Fully Automated Facility** – Equipment imported from Japan & China

Product Line & Capabilities

◆ **Industries Served:** Automotive, Power, and Other Sectors

◆ **Applications:** Components for Cars, Motorcycles, and Gensets

◆ **Component Weight Range:** 4 grams to 1,700 grams

Advanced Machinery & Testing Facilities

🔧 **Pressure Die Casting Machines:**

350-ton (3 units)

250-ton (1 unit)

138-ton (1 unit)

90-ton Hot Chamber Die Casting Machine

🔧 **Other Machinery:**

Lathes, Furnaces, Presses, Slotting, Milling, Grinding & Descaling Machines

🔧 **Testing Facilities:**

**CMM (Coordinate Measuring Machine)**

**Spectrometer** for precision quality control

With **over 100 skilled employees working round the clock**, Excel Die Castings ensures seamless production, meeting the highest industry standards while delivering **excellence in every cast**.

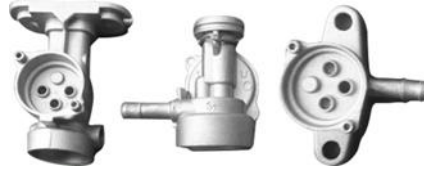
Valued Customers

Excel Die Castings is a trusted supplier to leading automotive and industrial manufacturers. Our high-quality die-cast components are used in:

🚗 **Passenger Cars** – Ford, Hyundai, Honda, Renault Nissan

🏍️ **Motorcycles** – Royal Enfield, Yamaha

🚜 **Agro Engines** – Greaves Cotton



**Fig. 1 Die Casting components**

With a strong commitment to precision, durability, and performance, products contribute to the success of globally recognized brands, ensuring superior quality in every component they manufacture as shown in figure 1. [3]

#### 4. Kasa Anlagen –Trusted Partner in Automation & Panel Building

Delivering Market-Leading Manufacturing Solutions

Kasa Anlagen (KA), an **Indo-American Joint Venture** established in **2011**, specializes in **panel building and industrial automation**, offering **high-quality, fully tested panels** that are seamlessly integrated with **DCS systems** before shipment. This **pre-commissioning process** saves valuable time at the site, providing customers with a **one-stop automation solution**.

From its inception, KA has been dedicated to delivering **quality across all business facets**, implementing **ISO-certified procedures** alongside its proprietary quality systems. This commitment to excellence has driven the company's **consistent growth and industry recognition** worldwide.

Legacy & Expertise

KA's foundation is rooted in the expertise of **Elektro Anlagen (EA)**, established in **1992 in Chennai, India**. EA initially focused on providing **comprehensive industrial electrical and automation solutions** and has since evolved into an **ISO 9001:2008 certified enterprises**. Today, the company manufactures:

- ✔ **Power & Control Panels**
- ✔ **Industrial Automation Solutions**
- ✔ **Turnkey E&I Solutions**
- ✔ **Software Development, Commissioning & Training**

With a **robust ERP system**, KA ensures **complete accountability and seamless execution throughout a project's lifecycle**.

Innovative Solutions & Core Capabilities

Intelligent Motor Control Centers (MCC)

A **pioneer in Plant Control Systems**, KA has been developing **Intelligent MCC solutions** for over five years, integrating advanced automation for enhanced efficiency.

E-House Solutions

KA offers a **fully pre-assembled, wired, and tested LT package**, housed within a **containerized E-House**, ready for direct shipment and deployment on-site.

Rockwell Certified System Integrator (RCSI)

KA has partnered with **Rockwell Automation** as an **RCSI-certified** system integrator. With extensive expertise in **L75 Controllers, MicroLogix, PlantPAx, and Factory Talk View**, KA has successfully executed numerous projects worldwide.

Rittal IEC 61439-1/2 Panels

As an **authorized Rittal Integrator**, KA has delivered **RI Inline Systems (1A-1B) and RI4 Power Systems (3A-3B)**, offering cutting-edge panel solutions.

PLC/DCS/SCADA Systems

KA engineers receive **comprehensive training in power panels, drive panels, and automation packages**, ensuring expertise in troubleshooting **complex, high-pressure site conditions**.

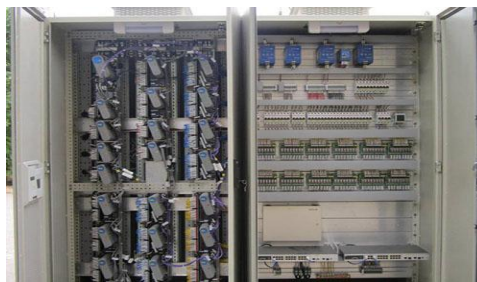
- ◆ **Authorized Rockwell Automation Partner** – Expertise in **automation and drive solutions**
- ◆ **Siemens & Honeywell System Integration** – Experience in both **hardware and software platforms**
- ◆ **Professional project documentation & execution** – Meeting international standards for European & global clients

### Industry-Specific Automation Expertise

- ✦ **Substation Automation** – Data acquisition & control of transformers, HT & LT panels, BMS, diesel generators, HVAC systems
- ✦ **Power Plant Automation** – Boiler, turbine, and Balance of Plant (BOP) automation
- ✦ **Pollution Control** – Electrostatic precipitators & fabric filters
- ✦ **Sugar Plant Automation** – Cane crushing, boiling house, evaporators, centrifugal section automation
- ✦ **Cement Plant Solutions** – Grinding units, fly ash handling, conveyors
- ✦ **Pulping Plant Automation** – Digester, brown stock washing, oxidation, bleaching, evaporator systems
- ✦ **Rocket Manufacturing** – Collaborating with **ISRO** in advanced manufacturing processes
- ✦ **Water Treatment Plants** – Wastewater & sewage water treatment automation
- ✦ **Bulk Material Handling** – Stackers, reclaimers, ship loaders, conveyor automation
- ✦ **Automotive Plants** – Press automation, conveyor systems, car wash automation, paint shops

### Why Kasa Anlagen?

- ◆ **fully tested panels & pre-commissioned automation systems**
- ◆ **ISO-certified quality standards**
- ◆ **Industry-leading expertise across multiple sectors**
- ◆ **Global partnerships with Rockwell, Siemens, and Honeywell**
- ◆ **Comprehensive turnkey E&I solutions**



**Fig.2, Electrical Panels,**

**With a commitment to innovation, efficiency, and customer satisfaction, KA continues to redefine industrial automation—bringing cutting-edge technology and reliability to businesses worldwide as shown in Fig.2, Electrical Panels [4]**

5, *GH Induction* – Pioneers in Advanced Induction Heating Solutions is Global Expertise, Local Innovation. GH Induction is one of the world's leading induction heating technology providers, headquartered in Valencia, Spain. With over 60 years of experience, a global footprint of 5,000+ customers, and a strong legacy of innovation and reliability, GH Induction continues to push the boundaries of digital heating solutions.

### The Future of Digital Heating

Induction heating is the most efficient and automated method for industrial heating applications, replacing outdated processes such as gas torches and heating elements. This technology enables:

- ✓ Precision-controlled heating
- ✓ Automated and repeatable processes
- ✓ Seamless integration into production lines, robots, and cobots
- ✓ Regulatory compliance and enhanced safety

### Seamless Integration across Industries

GH Induction's modular heating solutions can be implemented in various manufacturing setups:

- ✦ as a heating station in industrial machines
- ✦ within production cells & lines as a heating system or standalone unit

🔗 In robotic and cobot applications for specialized processes such as brazing and hardening

#### Key Technical Advantages

- ◇ Fast & precise heating for superior quality
- ◇ Temperature control & cycle programming for consistency
- ◇ Automated Inductor Change (AIC) system for rapid changeovers and reduced downtime
- ◇ Seamless integration with Industry 4.0 technologies
- ◇ Energy-efficient & eco-friendly heating solutions

#### Business Benefits

- ✔ Short ROI with improved operational efficiency
- ✔ Higher productivity & lower operating costs
- ✔ Optimized production automation
- ✔ Enhanced worker safety & compliance with global regulations

#### Applications of GH Induction Heating Technology

- ◇ Heat Treatment – Hardening, tempering, and pre/post-heating
- ◇ Assembly & Joining – Brazing, shrink fitting, and curing
- ◇ Surface Coating & Curing – Precision-controlled heating for coatings
- ◇ Green Heating – Energy-efficient solutions for sustainable production

#### Comprehensive Customer Services

They provide end-to-end support across the entire project lifecycle, ensuring maximum return on investment for heating solutions.

- 🔗 Induction Heating Machines & Systems – Customizable for various industries
- ⚡ Kompac Power Supply – Reliable power solutions for induction heating
- 🌀 3D & Traditional Inductors – Optimized designs for efficiency
- 📊 Induction Process Monitoring (IPM 4.0) – Real-time monitoring & analytics
- 💡 Turnkey Solutions & Consulting – Tailored strategies for industrial heating

#### Join Induction 4.0 – The Future of Smart Manufacturing

GH Induction is at the forefront of Induction 4.0, integrating IoT, augmented reality, additive manufacturing, digital simulations, and automation into advanced smart manufacturing systems.

- ◇ 100% digital integration into Industry 4.0 production lines
- ◇ Real-time process optimization through predictive analytics
- ◇ Increased flexibility & cost efficiency for evolving market demands

With GH Induction's expertise, heating processes will be smarter, faster, and more sustainable.

#### ◇ Industries We Serve:

- ✔ Energy & Power
- ✔ Heavy Machinery & Trucks
- ✔ HVAC
- ✔ Automation & Manufacturing
- ✔ Transportation
- ✔ Metal Tools & Tube/Pipe Processing



**Fig.3, Induction Heating**

Revolutionize heating processes with GH Induction – where precision meets innovation as shown in figure 3 [5]

#### 6. CRP India – Excellence in High-Pressure Die Casting

##### Mission

To be a leading provider of **Pressure Die Casting solutions** by continuously upgrading **manufacturing technology** and investing in the **training and development** of employees.

##### Commitment to Quality

At **CRP India**, **customer satisfaction** is top priority. They achieve this through:

- ✓ **A fully computerized Quality Management System**
- ✓ stringent **quality control and checks** using the latest **POWER INSPECT software**
- ✓ A culture of **quality assurance and continuous self-improvement** at all levels

To ensure **precision and reliability**, CRP provides **ongoing training** for employees, reinforcing our commitment to **consistent quality and customer satisfaction**.

##### Vision

Strive to be a **one-stop solution** for **high-quality Pressure Die Cast products**, enabling s to offer:

- ✓ **Consistent product quality**
- ✓ **Reduced lead times**
- ✓ **Cost-competitive manufacturing**

Goal is to be a **globally preferred supplier** for **Pressure Die Casting products**, a **leader in technology adaptation**, and achieve a turnover of **₹1250 million**.

##### Quality Assurance & Advanced Manufacturing

At CRP, they stay ahead of market demands by continuously upgrading **technology, processes, and product quality**.

##### Complete Solutions for Pressure Die Casting

- ◆ **CNC Pressure Die Casting Machines** – Fully automated with **Auto Ladle, Auto Spray, and Auto Part Pick-up** for consistent output
- ◆ **Temperature-Controlled Electric Furnaces** – Ensures efficient melting and defect-free castings
- ◆ **Centralized Melting Process** – Reduces porosity and enhances casting integrity

##### Heat Treatment for Enhanced Durability

To improve **hardness, strength, and dimensional stability**, **heat treatment** is applied to select aluminum castings. Our precise **time and temperature control** optimizes mechanical properties such as **elongation and ductility**.

##### Surface Finishing & Customization

They provide a range of **in-house finishing operations**, including:

- ✓ **Shot blasting & vibratory deburring**

**✓ Supplier-managed anodizing, painting, polishing & plating****✓ Complete assembly-ready components**

About CRP India

CRP India is a **trusted manufacturing partner** for **globally recognized engineering brands**.

**journey:**

- ◇ Founded in **1975** as *The Southern Tool Services*
- ◇ Transformed into **CRP India** in **1987**, specializing in **high-pressure die casting**
- ◇ Evolved from a **die casting sub-contractor** to a **component supplier**
- ◇ Expanded into **independent assemblies for European markets**

As an **environmentally responsible** company, **75% of our electricity comes from wind energy**, with plans to achieve **100% renewable energy** usage in the near future.

Prestigious Clientele

They are proud to serve leading global and domestic brands, including:

**✓ Automotive & Engineering Giants**

- ◇ Maruti Suzuki
- ◇ Yamaha
- ◇ Ashok Leyland
- ◇ Nissan
- ◇ BorgWarner
- ◇ Rane TRW

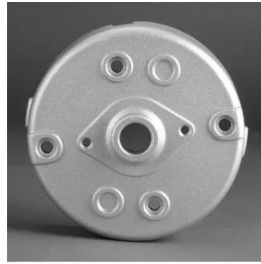
**✓ Industrial & Technology Leaders**

- ◇ Lucas-TVS
- ◇ Delphi-TVS
- ◇ Brakes India
- ◇ Atlas Copco
- ◇ Parker
- ◇ Turbo Energy Ltd

**✓ Global Market Leaders**

- ◇ Gilbarco
- ◇ Lister Petter
- ◇ Stanadyne
- ◇ ASCO
- ◇ Xomox

At **CRP India**, they don't just manufacture parts—they deliver **quality, reliability, and innovation** to drive industry success.



**Fig.4: Die Casting Parts,**

🔗 **Partner with for cutting-edge die-casting solutions are shown in figure 4. [6]**

#### 7. Karna Reinforcements – Experts in Fiber-Reinforced Plastic Solutions

**Karna Reinforcements is a leading manufacturer of fiber-reinforced plastic (FRP) products, catering to industries that require durability, corrosion resistance, and precision engineering. Product portfolio includes windmill covers, bulk acid storage tanks, corrosion-proof linings, security cabins, swimming pool equipment, and more.**

##### Company Overview

- ✓ Nature of Business: **Service Provider & Manufacturer**
- ✓ Additional Business: **Factory / Manufacturing**
- ✓ Legal Status: **Proprietorship**
- ✓ Annual Turnover: **₹40 lakh – ₹1.5 crore**

##### Product Range

- ◆ GRP (Glass Reinforced Plastic) Products
- ◆ Windmill Components (**including covers & ladders**)
- ◆ Stainless Steel Ladders
- ◆ Bulk Acid Storage Tanks
- ◆ Corrosion-Proof Linings
- ◆ PVC, HDPE & PP Pipelines
- ◆ Industrial Blowers & Impellers
- ◆ Security Cabins
- ◆ Swimming Pool Equipment





**Figure 5: Impeller**

At Karna Reinforcements, they are committed to delivering high-quality, long-lasting FRP solutions for industrial, commercial, and residential applications as shown in figure 5. [7]

**8. Sri Balaji Assemblies & Plastics (P) Ltd. – A Legacy of Innovation & Excellence***Journey*

- 1988 – Founded with just two hand molding units, initially supplying consumer products.
- 1990 – Expanded into the automobile industry, marking a significant milestone.
- 1991 – Ventured into textile and plastic components manufacturing.
- 1996 – Began manufacturing plastic components for LUCAS-TVS.
- 1997 – Established the Wiring Assembly division to enhance our capabilities.
- 2000 – Launched cover plate and brush plate assembly.
- 2001 – Started coil winding operations, adding to our expertise.
- 2003 – Achieved ISO 9001:2000 certification, reinforcing our commitment to quality.
- 2004 – Incorporated as a Private Limited company.
- 2005 – Acquired our own manufacturing facility, paving the way for future expansion.
- Current Focus – Working towards TS 16949 certification, ensuring world-class quality standards.

At Sri Balaji Assemblies & Plastics (P) Ltd., team of talented engineers is dedicated to developing and delivering high-quality products with a focus on precision, reliability, and customer satisfaction.



**Figure 6: Winding components, Figure 6 Molding Components.**

Quality Policy: They are committed to the manufacture and supply of superior-quality products that meet customer and regulatory requirements. Through continuous process improvement, they strive to enhance efficiency, innovation, and customer satisfaction at every stage of operations. [8]

**9. Pulsars: Innovation, Excellence & Reliability**

Journey: Pulsars were founded in 1988 as a garage start-up, and over the years, have grown into a trusted name in the industry. With a strong foundation in technical expertise, infrastructure, and customer relationships, take pride in credibility and the trust have built with clients worldwide.

*Infrastructure Strength*

Have a state-of-the-art facility equipped with cutting-edge tools for software design, circuit development, testing, and production. Infrastructure includes:

- ✓ Advanced measurement & testing equipment – EM field meters, digital meters, insulation testers, lux meters, temperature-controlled ovens, and more.
- ✓ Modern design lab – Featuring the latest diagnostic instruments and tools for precise circuit and software development.
- ✓ Highly skilled workforce – Our biggest asset is our team of trained and motivated professionals dedicated to innovation and excellence.

*Expert Team & Capabilities*

Success is driven by a team of experienced designers, engineers, and specialists who are committed to delivering top-quality solutions.

- ◆ Continuous Learning: Our engineers undergo frequent training to stay updated on the latest trends, emerging technologies, and new device innovations.
- ◆ Customer-Centric Approach: Provide customized solutions with quick feature modifications and enhancements based on client requirements.

#### Specialization

Excel in in-house circuit design and software development, ensuring optimal hardware-software integration.

- ◆ Embedded Systems Expertise: Provide end-to-end solutions for Embedded Control Design & Embedded Software Development.
- ◆ Bespoke BOM Cost Optimization: Design solutions tailored to budget constraints while maintaining quality and performance.
- ◆ Power Efficiency: expertise covers both battery-operated controllers and mains-operated systems, handling power budget constraints and noise level considerations effectively.
- ◆ EMC & EMI Compliance: ensure that all designs adhere to electromagnetic compatibility (EMC) and electromagnetic interference (EMI) standards.

Global Reach & Client Satisfaction: Commitment to quality and innovation has earned recognition across India, Sri Lanka, the USA, New Zealand, and beyond. Aim to build and sustain long-term relationships with esteemed clients by offering cutting-edge products and exceptional service.

#### Product & Service Offerings

- ✓ Vending Machine Controllers: Including Premix-Based Vending Machine Controllers, Bean-to-Cup Fresh Brew Coffee Machine Controllers, and more.
- ✓ Embedded Systems Design & Development – Comprehensive solutions for hardware and software.
- ✓ Custom Circuit & Software Development – Tailored solutions to meet specific customer needs.

#### Successful Projects & Innovations

- ◆ BLDC Controller & Touchscreen-Based UI – Developed for the X-Y Vending Machine Project in collaboration with Tata Technologies, USA.
- ◆ 100W Low-Cost Solar Inverter – Designed for the TEDA Green House Project, promoting sustainable energy solutions.



#### 7: Integrated Snacks Vending Machine

At Pulsars, they are committed to innovation, reliability, and customer satisfaction. Whether need a custom embedded system, a vending machine controller, or advanced electronic solutions, they are here to turn ideas into reality as per figure 6 and 7 [9]

#### 10. Afflatus – Innovating Print & Packaging Solutions

A Legacy of Excellence Since 2003

Afflatus was established in 2003 as a Gravure Cylinder Manufacturer in India. Over the years, become a trusted brand in the printing industry, known for our state-of-the-art automated and eco-friendly manufacturing technology. With a team of experts boasting over 20 years of experience, are committed to delivering high-quality gravure printing solutions tailored to the needs of our clients.

#### Comprehensive Printing & Packaging Solutions

At Afflatus, offer a complete suite of gravure printing solutions that rival the best in the world. Fully automated electronic engraving facility, housed in a centrally air-conditioned and dust-free environment, ensures precision and consistency in every project.

Clientele includes some of the biggest names in the printing business in India, who trust for uncompromising quality and international standards.

- ✓ End-to-End E-Service Solutions – offer complete process management to ensure seamless coordination.
- ✓ Real-Time Project Monitoring – As a brand manufacturer, stay informed and involved at every stage.

- ✔ Industry-Leading Technology –leverage Fully Automated Laser Engraving & Full HD Flexo Machines for superior quality.
- ✔ Customized Packaging Solutions – Supporting Converters and Brand Owners with innovative printing solutions.

#### **Vision**

To be a technological leader in the cylinder industry, offering cutting-edge solutions through value-driven management while setting new benchmarks in quality and innovation.

#### **Values**

- ◇ Integrity & Fairness – Ethical business practices at every level.
- ◇ Customer-Centric Approach – Focused on meeting and exceeding customer needs.
- ◇ Commitment to Quality – Delivering world-class products and services.
- ◇ Safe & Healthy Work Environment – Prioritizing employee well-being.
- ◇ Continuous Improvement – Training employees and refining processes to drive excellence.

#### **Mission**

- 🎯 Inspire confidence and loyalty among customers.
- 🌐 Demonstrate industry leadership with innovative solutions.
- 💚 Be a responsible and respected member of the global printing community.

#### **State-of-the-Art Production Facilities**

Afflatus Gravure Pvt. Ltd. operates a high-tech production unit, equipped with the latest digital and mechanical technologies.

- ◇ Advanced Design Studio – Featuring digital scanners, SLR cameras, and pre-press graphics software for high-precision design work.
- ◇ Multi-Stage Cylinder Preparation – Utilizing automated galvanolines and copper-finishing processes for flawless engravings.
- ◇ Polish Master Machines – Digitally controlled high-precision polishing to ensure consistent quality.
- ◇ Electronic Engraving Machines – Ideal for packaging, décor printing, and specialized applications such as board and foil printing.

#### **Specialized Printing & Engraving Products**

##### **Afflatus Packaging Cylinders**

Designed for modern packaging needs, offering:

- ✔ Sharp, detailed prints with precision engraving.
- ✔ Durability for high-speed production environments.
- ✔ Compatibility with diverse packaging materials.
- ✔ Custom options to meet unique printing requirements.

##### **Afflatus Shafted Cylinders**

Engineered for seamless integration into your printing process, ensuring:

- ✔ Stable and durable shaft construction.
- ✔ Uniform ink transfer for consistent print quality.
- ✔ Easy installation and maintenance.
- ✔ Customization to fit different printing press configurations.

##### **ITR Photopolymer Sleeves**

Afflatus has introduced India's first dedicated ITR Photopolymer Sleeve manufacturing facility in Noida. FAST Round Systems bring the best of flexo printing and gravure precision together.

- ◇ Plate access time of less than one hour for four photopolymer sleeves.
- ◇ Minimal environmental impact.

◆ Ideal for tags, labels, and flexible packaging applications up to 55 inches wide.

**Innovating with Embossing Technologies**

Afflatus is leading the way in embossing dies and rollers with a dedicated team of engineers and cutting-edge machines. Efficient and cost-effective solutions ensure that brand stays ahead of industry trends.

**Flexographic Printing Solutions**

Flexographic printing offers fast-drying fluid inks with relief printing plates, delivering high-speed, high-quality prints for various packaging applications.

- ◆ Rubber & photopolymer printing plates mounted on rotating cylinders.
- ◆ Efficient ink transfer & quick-drying for sharp, vibrant prints.
- ◆ Ideal for labels, cartons, and flexible packaging.

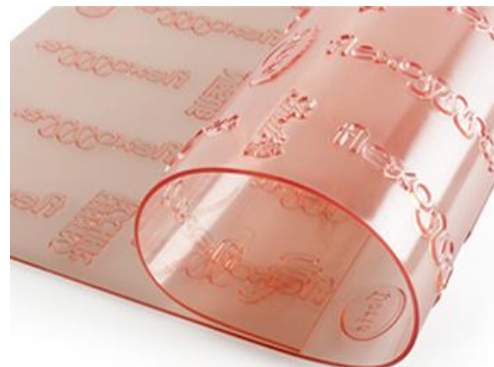
Elevate Your Printing Capabilities with Afflatus



**Figure 8: Coating Cylinder and Figure 9 Packaging Cylinder**



**Figure 10: Shafted Cylinder, and Figure 11: ITR Photo Polymer Sleeve Concept**



**Figure 12: Embossing Dies and Rollers, Figure 13: Flexography Printing Plate**

Afflatus is committed to delivering precision, reliability, and innovation in engraving and printing solutions. Whether need customized gravure cylinders, advanced flexographic plates, or cutting-edge photopolymer sleeves, they have the expertise and technology to meet needs.[10]

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### 3. Conclusion

Chennai Incubation Technology Centre contains 40 SPV members where Common Facility Centre is created for precision manufacturing components. 10 members who are using the CFC for precision manufacturing are studied. 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 maximization with better precision components.

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