

# **GEECO Corporate Profile**

**Vijayaprakash VR**

**Technology Management Advisor**



To be a world class engineering organization that provides the best products and services



- Providing the Products and Services that exceed Customer expectations
- Innovating and Deploying total business solutions
- Empowering our Employees and creating an environment for them to perform at their highest potential

# COMPANY HISTORY

- ★ 1985 : Estd. “Geetha Engineering Company” for manufacturing APH Components
- ★ 1999 : Inc. of “GEECO Enercon Pvt. Limited”
- ★ 2002 : 1<sup>st</sup> R&M of APH for Koradi TPS - 210 MW
- ★ 2011 : New APH for BALCO - 135 MW
- ★ 2014 : Inducted ESP as New Product
- ★ 2015 : New GGH for TATA Power - 500 MW
- ★ 2019 : MAXTRA APH for Sem Calaca, Philippines - 300MW
- ★ 2019 : First Erection & Commissioning of ESP (Aditya Birla) – 30MW
- ★ 2019 : Government recognised R&D Lab (DSIR)
- ★ 2022 : Overall basket production - 100,000+ MT (250,000+ Baskets)
- ★ 35+ years of Overall Experience



# LOCATIONS - INDIA

## HEAD OFFICE – TIRUCHIRAPPALLI, INDIA



## FACTORY – THANJAVUR, INDIA



# LOCATIONS - OVERSEAS

## USA



## MALAYSIA



## SOUTH AFRICA





**MANAGING DIRECTOR**  
**Mr. V. Rajagopal**



**DIRECTOR**  
**Mr. C. Gunasekaran**



**TECHNOLOGY MANAGEMENT ADVISOR**  
**Mr. V.R. Vijayaprakash**

# LEADERSHIP TEAM



**Mr. J. Albert Jeyachander**  
General Manager  
Commercial & Marketing



**Mr. R. Shivakumar**  
General Manager  
Field Engineering Service, APH



**Mr. M. Raghupathy**  
General Manager  
Production



**Mr. S. Ragunathan**  
General Manager  
Engineering, APH



**Mr. R. Selvarethinam**  
Senior Deputy General Manager  
Field Engineering Service, APH



**Dr. M. Suresh**  
Senior Deputy General Manager  
Research & Development



**Mr. C. S. Vimal Sugunaraj**  
Senior Deputy General Manager  
Engineering & Field Engineering, ESP

DEPARTMENTS	EMPLOYEES
Top Management	3
Commercial & Marketing	7
Engineering	14
Procurement & Stores	10
Planning	4
Production & Outsourcing	27
Maintenance	9
Quality	4
Shipping & Logistics	2
Field Engineering Services	16
Performance Testing	4
Finance	7

DEPARTMENTS	EMPLOYEES
Operations Management	1
Research & Development	5
Administration & HR	20
Security	11
Civil	3
Information Technology	2
Machine Operators	25
Fitter	25
Welder	70
Cutter	10
Grinder	15
Helper, Rigger and Load men	60

**Total No. of Employees: 350+**



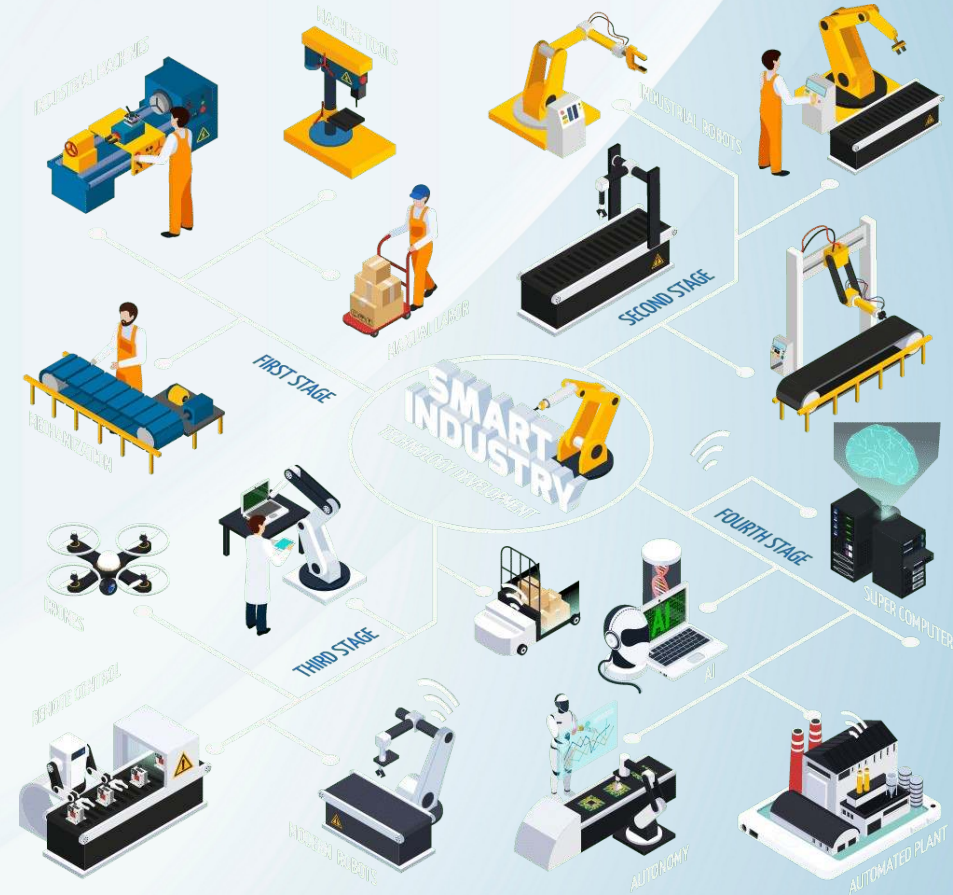
# STRENGTHS & CAPABILITIES

- ✔ Quality Spares for any make & size of APH & ESP upto 1000 MW
- ✔ New Air Preheaters & ESP
- ✔ In-house Research & Development (R&D)
- ✔ Carrying out CFD / FE Analysis
- ✔ Undertaking Assessment Studies
- ✔ Renovation & Modernization Jobs
- ✔ All pre-assemblies are done in-house
- ✔ Field Engineering to ensure reliable operation
- ✔ Testing in APH, ESP, Boiler & Ducts
- ✔ On-time Delivery – MOUs with Steel Mills – Min/Max Stock
- ✔ Total Company Operations by ERP & ACTRA Systems



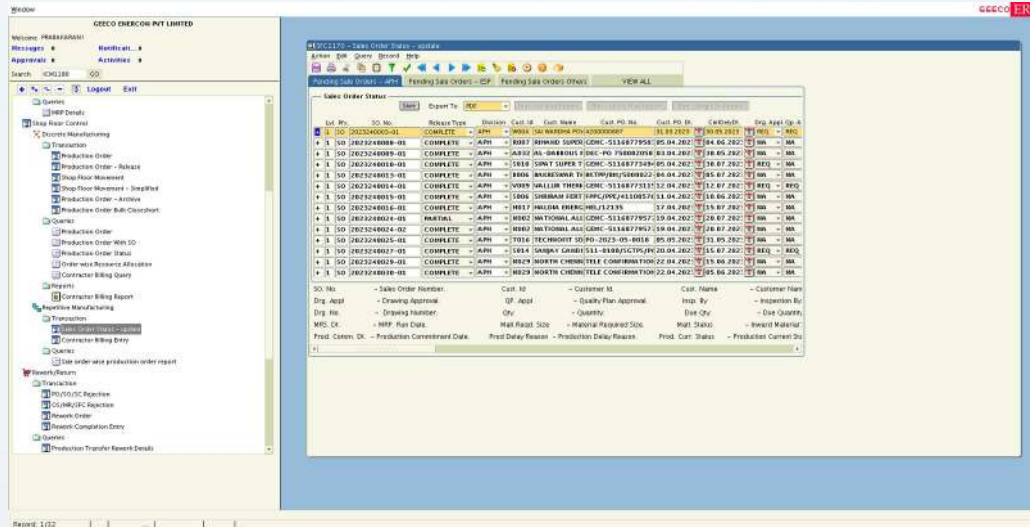
# MANUFACTURING CAPABILITIES

-  Total Manufacturing Capacity : 1600 MT Per Month
-  Products & Spares : 400 MT Per Month
-  Heating Elements : 1200 MT Per Month
-  Total Covered Area : 154,000 Sq.ft.
-  Total Area : 20 Acres
  
-  Concurrently, 4 units of APH size 36 VI can be manufactured
  
-  Installed most of the machines required for In-house manufacturing



# ENTERPRISE RESOURCE PLANNING (ERP)

- Streamlining Business Operations
- Effectively plan, execute, and monitor projects
- Enhancing overall productivity in all departments



# ACTRA (Activity Tracker)



Workflow Management



Real-Time Notifications



Reduce Miscommunication



Enables Feedback and Tracking



Facilitates Internal Communication



Streamlined Channel For Communication



Ensures That Everyone Is On The Same Page

Home My page Projects Administration Help

ACTRA (Activity Tracker) - GEECO

Projects New project >

GEECO  
Geeco Enercon Pvt. Ltd.

- ADMIN Department Activities★
  - Feedback Form★
  - GEECO Profile Video Shoot★
- BUSINESS DEVELOPMENT Department Activities★
- CIVIL & FACILITIES Department Activities★
- COMMERCIAL Department Activities★
  - Commercial\_Department\_Contacts★
- CRM★
  - CRM\_SERVICE\_APH★
  - CRM\_SERVICE\_ESP★
  - CRM\_SUPPLY\_APH★
    - Handing\_Over\_Status★
  - CRM\_SUPPLY\_ESP★
    - Handing\_Over\_Status★
- ENGINEERING-APH Department Activities★
- ENGINEERING-ESP Department Activities★
- FES-APH Department Activities★
- FES-ESP Department Activities★
- FINANCE Department Activities★
- GEECO INFORMATION★
- GEECO SEMINAR ACTIVITIES★
- HR Department Activities★
- INTEGRATED MANAGEMENT SYSTEM★
  - IMS Department Objectives★
- IT Department Activities★
- LEGAL Department Activities★
- MAINTENANCE Department Activities★
- OPERATIONS MANAGEMENT Department Activities★
- OUTSOURCING Department Activities★
- PERFORMANCE TESTING Department Activities★
- PLANNING Department Activities★
- PROCUREMENT Department Activities★
- PRODUCTION Department Activities★
  - Contractor Loading★
- PROJECT MANAGEMENT Department Activities★
- QUALITY Department Activities★
- RESEARCH & DEVELOPMENT Department Activities★
- SAFETY Department Activities★
- SECURITY Department Activities★
- SHIPPING Department Activities★
- STORES Department Activities★
- TOPM Department Activities★
- Handing Over Status
- TEST Department Activities★
- VIJAY Tasklist
- Contacts★

★ My projects  
Also available in: Atom

# SPECIAL MACHINE – Plano Milling



# SPECIAL MACHINE – Spiral Emitting Electrode



# SPECIAL MACHINE – CNC Pressing



# SPECIAL MACHINE – Laser Cutting



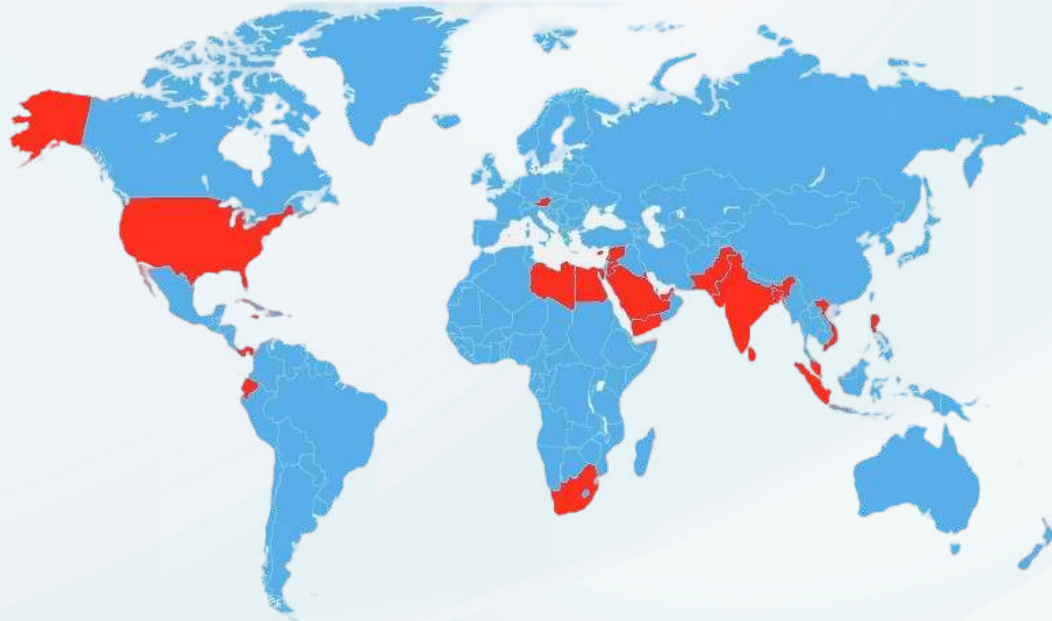


# SPECIAL MACHINE – Plasma Cutting



# GLOBAL FOOTPRINT

- ✈ 24 Countries and Expanding
- ✈ Delivery Term up to End User Plant
- ✈ Foreign Trade Agreement Management
- ✈ ISPM-15 Standard Seaworthy Packing



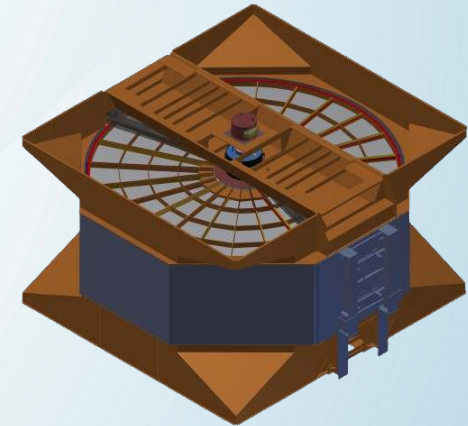
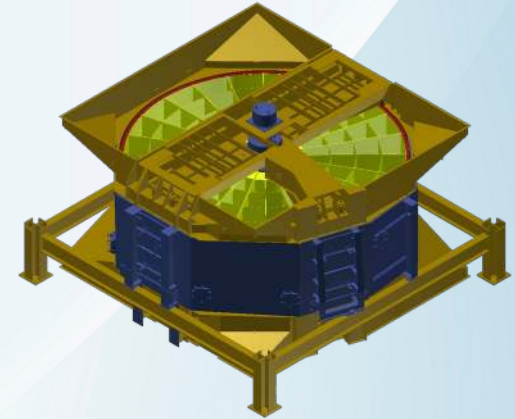
# APH & GGH – New (Full) Supply

## New APH Projects Executed

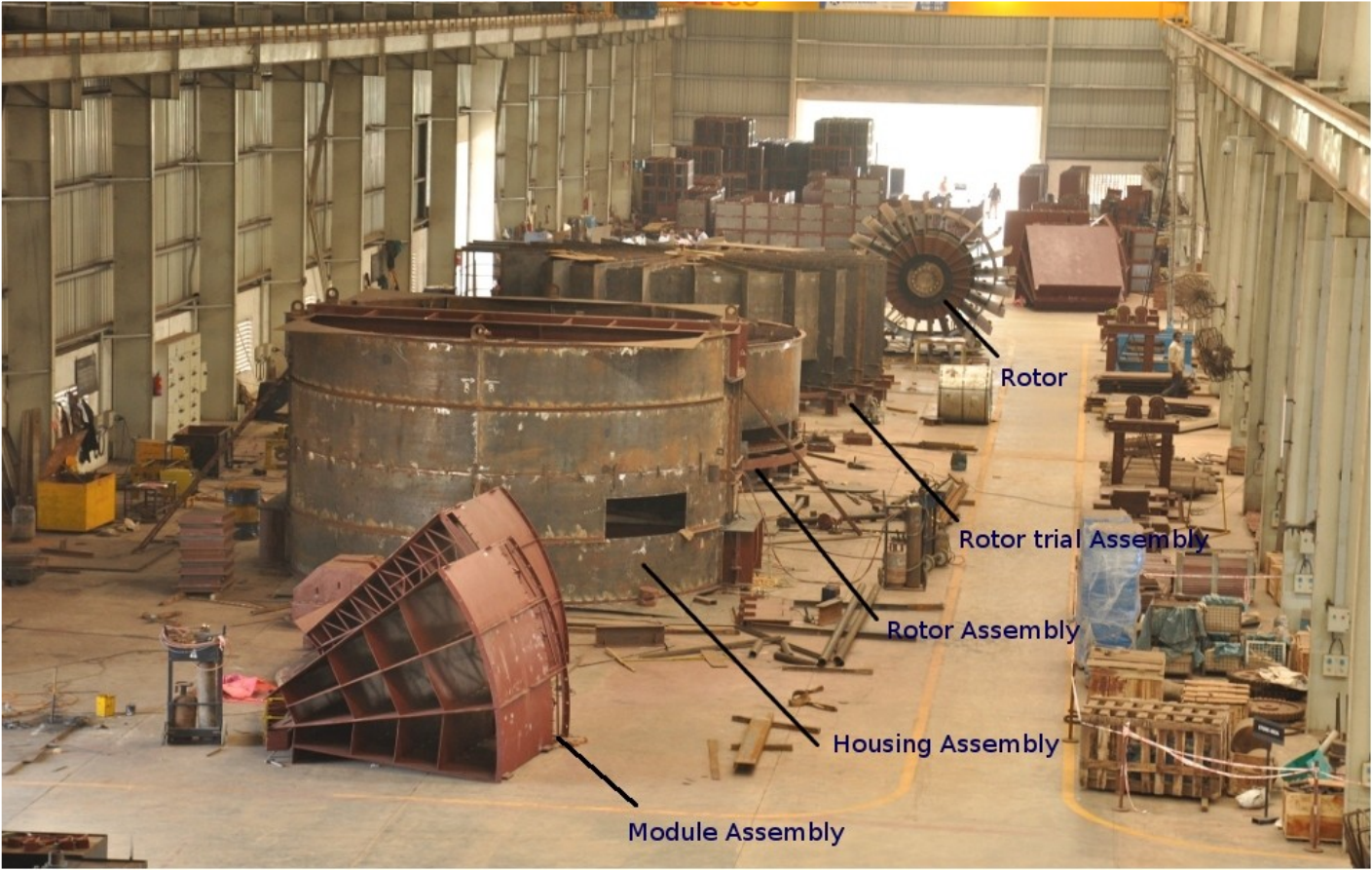
- ✓ M/s. Ansaldo Boilers India Pvt Ltd – Nagai – I – 2x27 VIT 2100 – 150 MW
- ✓ M/s. Bhart Aluminium Company Ltd – 2x25.5 VIMT 1900 (2100) – 135 MW
- ✓ M/s. BPCL – Kochi Refineries Ltd – Unit 7 – 1x18 HSX 955 (1055) – 17.8 MW
- ✓ M/s IFFCO Phulpur - Unit 1 – 1x22 VIR 1680 – 125 TPH
- ✓ M/s LIBYA (ETM INDUSTRIEANLAGEN) – 1x22.5 VIRX 62 (70) – 120 MW
- ✓ M/s. NALCO, Damanjodi – Unit 2 – 1x22.5 VIR 1600 – 200 TPH
- ✓ M/s. NALCO Angul – Unit 2, 3, 4, 5 – 8x24.5 VIT 1700 SMR – 120 MW
- ✓ M/s.Semirara – Calaca Philippines – Unit 1 – 2x29.5 VIT 88 QMR – 300 MW
- ✓ M/s Wanakbori TPS – 1x27 VITM 80 – 210 MW
- ✓ M/s.TANGEDCO – Mettur TPS – Unit 1 – 2x27.5 VIMT 2300 – 210 MW

## New GGH Projects Executed

- ✓ TATA Power, Trombay - Unit 5 - 27 VIM 84" - 500 MW



# APH – Manufacturing at Shop Floor





# APH – Spares Supplied for Various Make

- ANSALDO, Italy
- ARVOS (ALSTOM), Germany
- ARVOS (ALSTOM), Japan
- ALSTOM (CE -APCO), USA
- BHEL, India
- BWE, Denmark
- BALCKE DÜRR, Germany
- DONFONG, China
- DAVIDSON & Co. LTD., Northern Ireland
- DOOSAN, Korea
- FRANCO TOSI, Italy
- GADELIUS KK, Japan
- HARBIN, China
- HOWDEN, Australia
- HOWDEN, U.K.
- HOWDEN, Hua
- MHI, Japan
- PARSON, Canada
- RAFAKO, Poland
- SHANGHAI, China
- STEIN INDUSTRIE, France
- TRANS ELECTRO, Hungary
- KRAFTANLAGEN (ABGASTECHNIK), Germany
- ROTHEMÜHLE, Germany
- SPX, Germany

# APH – Renovation & Modernization (R&M)

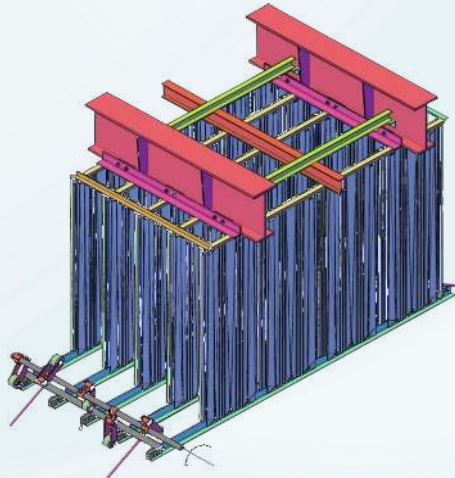
## Projects Executed

- ✓ M/s. BALCO CPP II – Unit 1, 3, 4 – 135MW
- ✓ M/s. Hindalco Industries, Renusagar – 5 Units - 77 MW
- ✓ M/s. Hindalco Industries, Renukoot – 35 MW
- ✓ M/s. Koradi TPS - 210 MW
- ✓ M/s. Nayara Project (Thermax) – Unit 4 – 750 TPH
- ✓ M/s. Semirara, Calaca Philippines - Unit 2 – 300 MW
- ✓ M/s. Talcher TPS - 110 MW
- ✓ M/s. Tuticorin TPS (TANGEDCO) - Unit 2, 3, 4 & 5 – 210 MW
- ✓ M/s. North Chennai TPS (TANGEDCO) - Unit 2 – 210 MW



# ELECTROSTATIC PRECIPITATOR

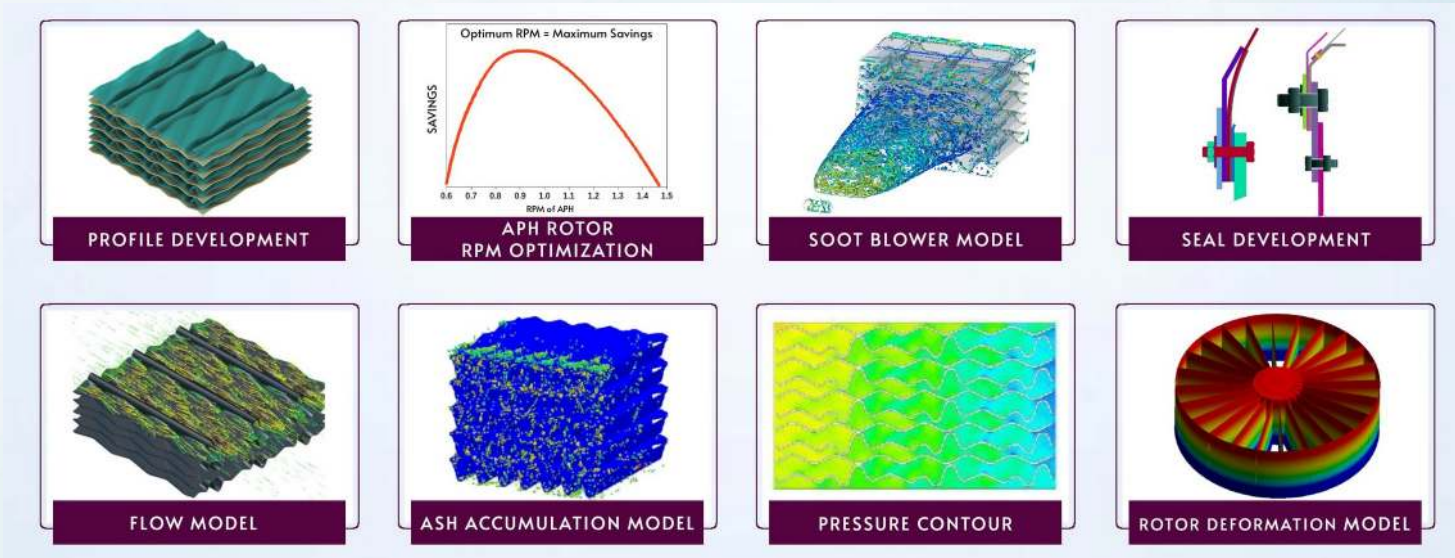
- Design, Engineering & Supply – Tumbling Hammer & EMIGI Rapping Mechanism
- Selection of Discharge Electrode - Specific to type of application
- Renovation, Retrofitting & Modernisation – Any design variant – Extended Life – Performance Enhancement
- Economical Solution – Performance Augmentation – Modern Transformer Rectifier set with Advanced Control Systems
- Computational Fluid Dynamics analysis – Even and uniform flow distribution
- Structural analysis – STAAD\_PRO – Adverse seismic condition
- Stringent Emission Norms based on Customer Requirement





# RESEARCH & DEVELOPMENT (R&D)

- 📍 Advanced Development - Innovative Technologies and products - Stay ahead of competition - Meet customer demands
- 📍 **CFD** (Computational Fluid Dynamics) - Simulating and analyzing flow & heat transfer - Optimize design - Improve performance - Reduce costs
- 📍 **FEA** (Finite Element Analysis) - Simulate and Evaluate the structural behavior - Various loading conditions - Enabling design optimization - Ensuring product reliability



# FIELD ENGINEERING SERVICE

- ✘ Dedicated & Technically Competent Engineers
- ✘ Quick Troubleshooting
- ✘ Imparting knowledge to customers
- ✘ Identify even the smallest problem
- ✘ Fast Response
- ✘ Customized solutions
- ✘ Suggest performance improvements
- ✘ Maintain long term customer relationship
- ✘ Increase the reliability of operation



# TESTING

- 🔧 Boiler Test
- 🔧 Air Load Test
- 🔧 Validation Test
- 🔧 Performance Test
- 🔧 Air In Leakage Test
- 🔧 Gas Distribution Test
- 🔧 Air/Gas Flow Equalising Test
- 🔧 Cold Air Velocity Test For Boiler
- 🔧 Clean Air Flow / Dirty Air Flow Test For Pulverisers





-  ISO 9001 - Quality Management Systems
-  ISO 14001- Environmental Management Systems (EMS)
-  ISO 45001 - Occupational Health & Safety Management Systems (OH&S)



## ISO 50001 - Energy Management Systems (EnMS)



 ISO 3834-2 – Quality, Integrity, Reliability and Safety of welding processes

# INTERNATIONAL SEMINAR

- Experienced speakers
- Conducted every two years
- Knowledge sharing with customers
- Attended by Power Plant Executives from all over the world
- Wide range of topics covering APH, ESP, CFD, FEA, Testing
- Focus on Maintenance, Improvements, Optimizations, Best practise guidelines, etc.



# REGIONAL SEMINARS

- Nagpur Region
- Korba Region
- Singrauli Region
- Angul Region
- Srilanka Region





- ☺ Enhance - Overall well-being and satisfaction of employees
- ☺ Healthcare Benefits, Wellness Programs, and Work-life balance support
- ☺ Higher Morale, Increased Productivity, and better retention rates within organization



- 👤 Skill Enhancement
- 👤 Knowledge Improvement
- 👤 Job Proficiency
- 👤 Improved Performance
- 👤 Acquire New Competencies
- 👤 Stay Updated with Industry Trends
- 👤 Employee Motivation
- 👤 Job Satisfaction
- 👤 Continuous Learning



# CORPORATE SOCIAL RESPONSIBILITY (CSR)

- ✿ Positive contribution to society and the environment
- ✿ Fosters a sense of responsibility & purpose among employees
- ✿ Supporting charitable causes - Promoting environmental sustainability - Engaging in community development





**THANK YOU**