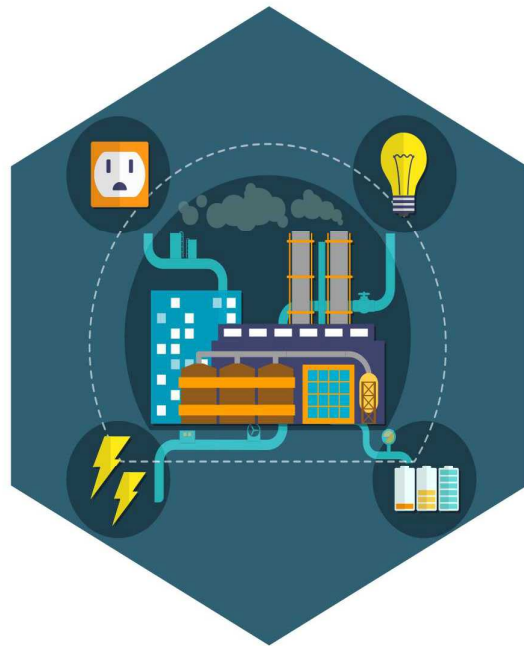


ADVANCED ENGINEERING SERVICES

Life needs a lot more Engineering



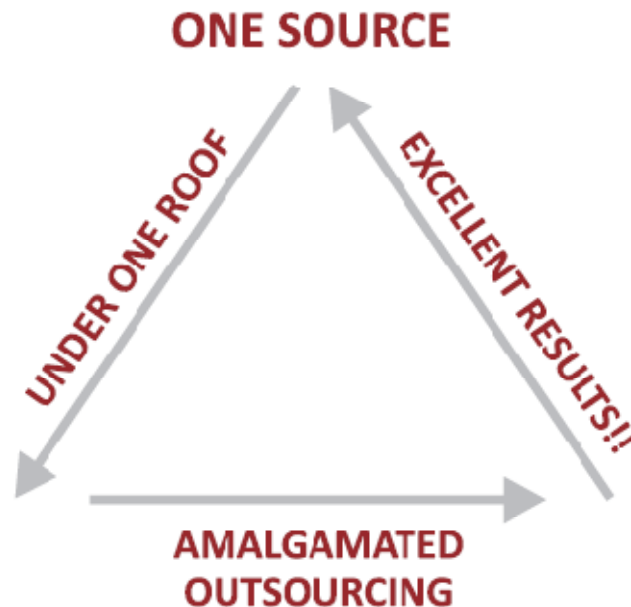
MISSION

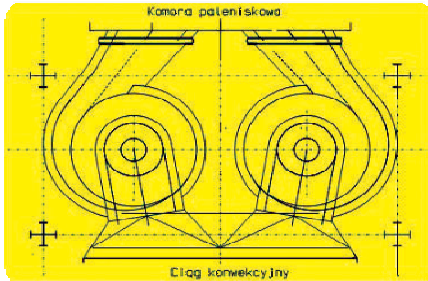
To enable Clients Maximizing their Business Success by focusing only on their Core Competencies and AES taking care of the rest.

VISION

To be the most trusted leader in the industry in providing Comprehensive & Competitive Engineering Solutions and Services.

BUSINESS APPROACH





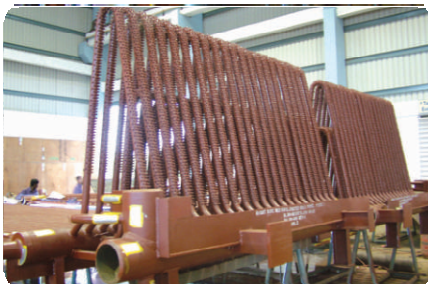
Advanced Engineering Services (AES) is a leading Independent Service Provider to Owners and Operators of Technological Equipment across Power Generation, Oil & Gas and Industrial Markets.

System engineering and **Project Management**, the two essential services that AES offers to their customers under one roof with an **amalgamated outsourcing concept**, set the organization different from other heterogeneous businesses.



AES targets to provide innovative integrated solutions that enhance the value delivered to the customers. AES has a collective affluence of experience in

- Technology
- Process engineering
- Product development & detailing
- Project coordination covering Procurement, Fabrication, Inspection & Logistics
- Erection & Commissioning of the entire plant and air pollution control units



The advanced engineering solutions and services offered would target substantial business benefits to our clients to shorten project execution time, minimizing project risks, and improving the key differential plant operation parameters such as **Availability**, **Reliability** and **Efficiency**.



AES can be **Clients' Consultants, Advisors and Engineers**.

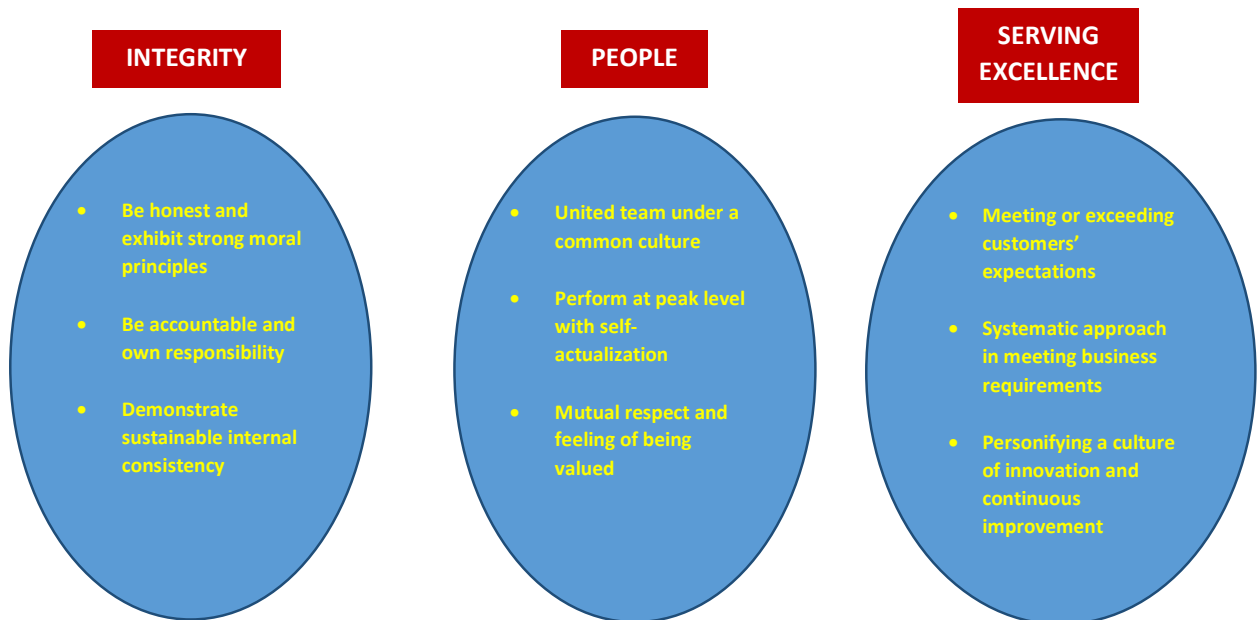


AES is established by a group of eminent engineers who have previously worked for more than 3 decades in the Energy Industries and garnered rich Domestic and International experience from World class companies such as Foster wheeler, Babcock Power, Doosan, IHI, BHEL, Petrofac, Thermax, Deutsche Babcock, Aibel, Toshiba, CETHAR, Aker Solutionsto name a few.

AES effectively combines the cultures that are best of both worlds, provides sustainable and comprehensive solutions for the global markets.

CORE BELIEFS

AES places importance on our following core beliefs & long-term relationships



CORE TRAITS

- Independent – Responsive – Flexible
 - ❖ Work alongside clients to build Long term relationships
 - ❖ Values & Ethics
 - ❖ Commercial flexibility
- Proven Solutions and Capabilities
 - ❖ Comprehensive understanding of the process
 - ❖ Proven portfolio of products & services
 - ❖ Technology strength & multiple OEM experience
- One stop shop – Single point accountability

These traits when combined maximize the return on customers' investments.

Engineering Services

- **Engineering Consultancy for Power Projects**
- **Feasibility Studies**
- **Piping Engineering**
- **ELECTRICAL detailing**
- **Instrumentation Engineering**
- **CIVIL and Architectural Engg.**
- **Steel** - Design & Detailing, Analysis
- **Skid** - Design & Detailing
- **Tanks** - Design & Detailing
- **PMC** (Project Management Consultancy Services)
- **Analysis & Optimization Services**
- **Procurement and Logistics Service Support**
- **Owners Engineers**
- **Due Diligence Services**
- **Site Advisory Services**
- **Reverse Engineering**

Environmental Services

- **Emission Modelling & Prediction**
- **Particulate Removal System**
 - Modern Cyclones
 - Mechanical Dust Collection (MDC) System
 - Electro Static Precipitation (ESP) System
 - Tumbling Hammer Type
 - EMIGI Type
- **SOx Control in BFB and CFB Boilers**
- **Tanks/ steel / piping / Ducting design services, Steel Analysis, Electrical and Instrumentation for FGD/SCR system**

Retrofitting Services

- **Energy Conservation study**
- **Retrofit & Revamping** of boiler and Power plant
- **Trouble Shooting** of Power plants and Boilers
- **Process Stabilization**
- **Conversion of old boilers into FBC Systems**
- **Boiler Condition Assessment (RLA)**
- **Parts Replacement**
- **Spare Supply for Packages and Equipment**
- **Base line and Performance Guarantee Testing**

Our Location:

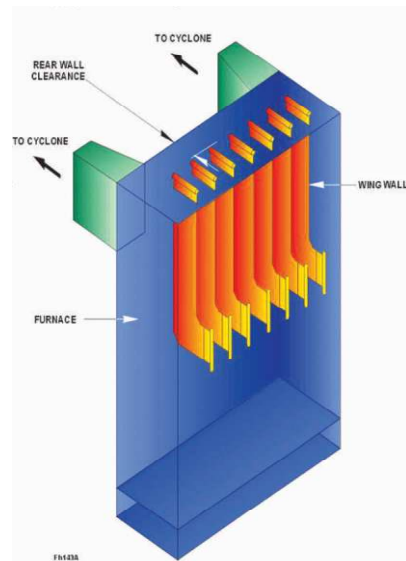
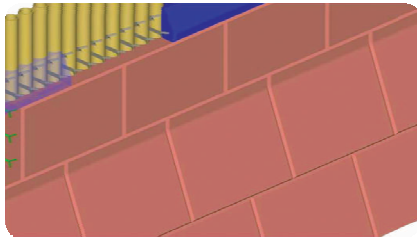
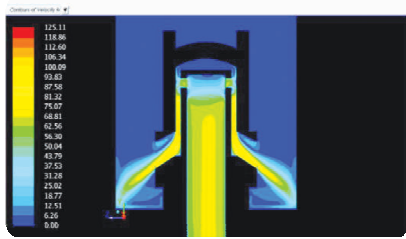
- **Trichy:**
 - Located 330 km from Chennai city, in Southern India
 - Trichy is the Power/Energy hub of India: Filled with a lot of Engineering & Manufacturing facilities
 - Centrally located in the Tamil Nadu State Province, well connected by Road, Air and Rail
 - One of the busiest Airports in India connecting all major cities, Gulf, SEA countries
- AES – Location at Trichy
 - 30 minutes' drive from Trichy International Airport
 - 4.5 hours' drive from Chennai - Major Sea Port
 - 4 hours' drive from Tuticorin - Major Sea Port
 - 3 hours' drive from Karaikal (Pondicherry) Port
 - 2 hours' drive from Madurai Airport



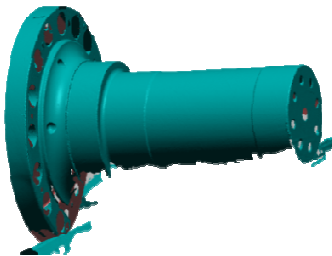
**AES CAPABILITIES****AES Offered Services**

S.No.	Description of Activity	Basic & Proposal Engineering	Process & Performance Engineering	Detailed Engineering	Project Engineering
1	Availability, Reliability & Efficiency				
1.1	Revamping and upgrading any OEM's old boilers for capacity enhancement / performance optimization for higher efficiency	✓	✓	✓	✓
1.2	Converting old boilers into Reliable FBC boilers	✓	✓	✓	✓
1.3	Availability improvement for Boiler & Power Plant	✓	✓	✓	✓
1.4	Heat Rate Improvement of Power Plants	✓	✓	✓	✓
1.5	Engineering Evaluation for O&M Cost Reduction	✓	✓	X	✓
2	Outage Services				
2.1	In-kind replacement of pressure parts	✓	X	✓	✓
2.2	Upgrading metallurgy and change of pressure parts	✓	✓	✓	✓
2.3	Commissioning & Start-up Services	✓	X	X	✓
3	Performance Optimization	✓	✓	✓	✓
4	Piping Engineering	✓	✓	✓	✓
5	Structural Steel Design and Analysis	✓	✓	✓	✓
6	Duct Design and Analysis	✓	✓	✓	✓
7	Reverse Engineering of Boiler and Automobile components	✓	✓	✓	✓
8	CAE and CFD Studies	✓	✓	✓	✓
10	Boiler Condition Assessment & Metallurgical Study(Residual Life Assessment - RLA - Study)	✓	X	X	✓
11	Auxiliary boilers / Package boilers	✓	✓	✓	✓
12	Waste Heat Boilers	✓	✓	✓	✓
13	HRSG Revamping	X	X	✓	✓
14	Heat Exchangers upgradation	✓	✓	✓	✓
15	Project Coordination with all stakeholders	X	X	X	✓
16	Training for Client's Engineers and O&M team	✓	X	✓	✓

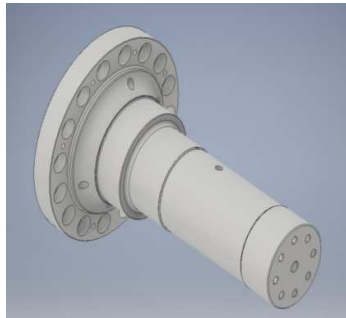
COMPUTATIONAL FLUID DYNAMICS (CFD)



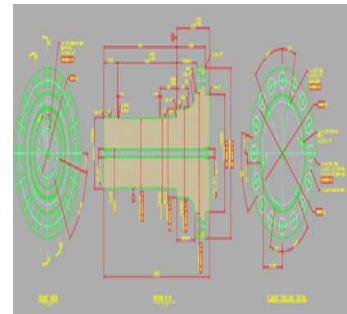
REVERSE ENGINEERING:



3D Scan of the Journal Shaft
of the Coal Pulverizer



3d model (Design X & CREO)
output of the Journal Shaft



Converted into a 2D drawing

ENGINEERING SOFTWARE EXPOSURE:

Mechanical:	Structural Steel:	Piping:	Flexibility Analysis:	Modeling:
AutoCAD	StaadPRO	Auto Plant	CAESER II	PDS / PDMS
Inventor	Tekla	CAD Worx	Triflex 2.6.2	Aveva E3D
Solid Works	Electrical:	MicroStation	AutoPipe	SP3D
PV-elite	SP Electrical	Blubeam REVU	FEA / CFD:	S3D
E-Tank	ETAP	ARIS	ANSYS	Navisworks
Nozzle Pro	Instrumentation:	Comos	FLUENT	Simulate
SAP Engineering module	SP Instrumentation	ProArc		Envision 3D model review

In view of our constant endeavour to improve the quality of products, we reserve the right to alter or change specifications without prior notice. All photographs shown in this publication are representative in purpose, and to be used for reference only. For actual details and specifications, please refer to AES offer documents



ADVANCED ENGINEERING SERVICES

REGD. ADDRESS

NO. 34, SRI MARI AVENUE, PALUR,
LALGUDI TALUK,
TRICHY, TAMIL NADU - 621216

MAIN BRANCH

NO. 13/4, VINAYAKA NAGAR 2nd STREET,
KARUMANDAPAM,
TRICHY, TAMIL NADU - 620001

Contact : 97919 98876

e-mail : info@aes-group.in

Website: www.aes-groups.in



ADVANCED ENGINEERING SERVICES