

CASE STUDY: Aircraft Engine Manufacturing Facility for IAMPL, Bangalore



SYConE Scope of Service: Architecture, Engineering & Project Management

Client: Rolls Royce & HAL
Status: Completed (2012)

PROJECT SPECIFICATIONS

- ▶ Structure: PEB Structure & related Civil and Infrastructure Works
- ▶ Area: 60,000 sqft
- ▶ Estimated Value: 1600 Lacs
- ▶ Date of Completion: 30.09.2012

Background

M/s IAMPL is a joint venture between M/s Hindustan Aeronautics Limited & M/s Rolls Royce (UK). This project is developed over an area of 5 Acres for creating a state-of-the-art facility for machining ring forgings into shrouds (seals) and cones to be used within Rolls Royce Civil Gas Turbines, more commonly known as jet engines. The facility will manufacture in excess of 130 different parts which will be used across the existing range of Rolls Royce Civil Engines.

Scope Of Services

SYConE was appointed as the Architectural Design, Detailed Engineering and Project Management Consultant for this project.

Broadly the scope of the work includes facilitating in framing client's requirements, managing execution / construction of project per the established project management principles. This included managing the overall works for a built-up area of 60,000 Sft.

Project Scope:

- Manufacturing facility for production of aero-engine parts.
- Power and lighting including redundant connectivity
- Storm water collection and disposal system including ground water recharge.
- Fire Protection systems like yard hydrants, sprinklers, fire detection & alarm systems
- Hydro pneumatic system of water supply
- Gas storage and distribution network
- Chilled water air-conditioning for the plant and office

Special Applications:

- 30 meter span column free space
- Hard wear floor with epoxy coating
- 2500 KVA connected load including Process and non process areas
- 300 KVA UPS for uninterrupted power for Critical Equipment, and independent UPS for emergency lighting and other office systems
- Air-cooled screw chillers with 1,50,000 CFM capacity serving the machine shops and the administrative area
- 10Kld capacity Sewage Treatment Plant in compliance with the statutory norms. Treated water designed to be used for irrigation
- Fire protection system with hydrant, sprinkler system, detection system and fire extinguisher system
- RCC sump has got a capacity of 110KL for Fire Reserve Tank with 11KL capacity for each of Domestic, Raw & treated water tanks.