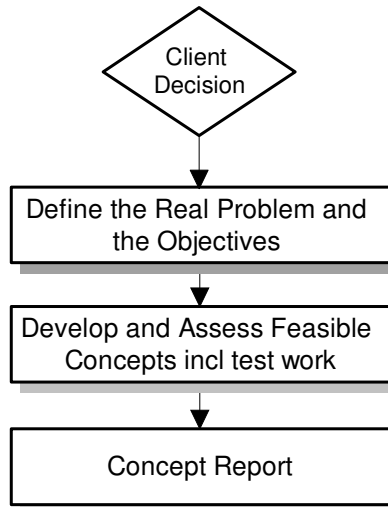


Complete Engineering Service

Study / Feasibility Phase

Outputs

- Well Defined Concepts
- Concept Drawings
- +/- 30% Estimates
- Report incl Scope of Project

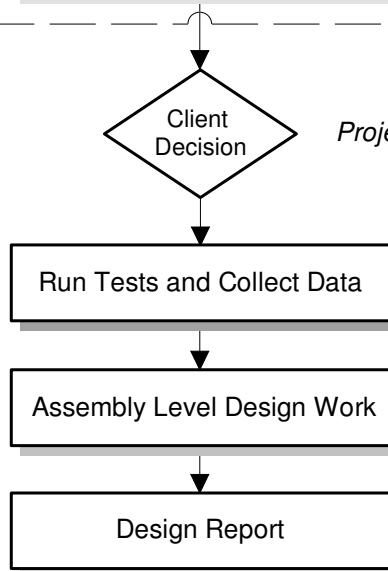


- Site Workshop - set objectives
- Search Available Technology
- Brainstorm Ideas
- Evaluate Alternatives
- Test Concepts
- Select Optimum Concept
- Prepare Conceptual Drawings
- Estimate Costs to +/- 30% or +/- 50%
- Prepare and Present Study Phase Report

Design Phase

Outputs

- Well Defined Project Plan
- G.A. Drgs, P&ID's & Layouts
- +/- 10% Estimates
- Report incl Scope of Project



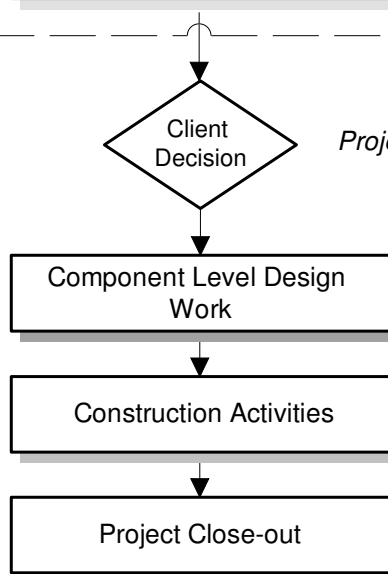
Project Feasibility Approval

- Test rigs, Prototypes and Simulations
- Detailed Engineering and Calculations
- Assessment of Safety & Engineering Risks
- Decide on Design Details
- Engineering and Quality Reviews
- Prepare GA's, Layouts and P&ID's
- Preliminary Hazop Study
- Prepare +/- 10% Estimate
- Prepare and Present Design Phase Report

Construction Phase

Outputs

- Project Completion
- On time
- On cost



Project Financial Approval

- Detailed Component Design & Drawing
- Prepare Bill of Materials
- Prepare Specifications for Sub-Contracts
- Purchasing and Manufacture
- Assembly and In-house Try-out
- Installation, Commissioning & Training
- Final Hazop & Manuals
- Project Handover