



# DESIGN, ENGINEERING & PROJECT MANAGEMENT CONSULTANCY

**"We Start With A Drop To Build Ocean For Our Clients"**

We carry out engineering of water and wastewater and take it through roller coaster flow right from conception to implementation by being solution provider and system integrator of choice by supporting our clients business objectives and consistently delivering contracts with excellence in environmental performance & safety that meet cost, schedule & quality targets.

Basic and detailed design & engineering of water & waste water treatment projects related to process, mechanical, electrical & instrumentation, automation w.r.t remote & internet of things, civil using latest design tools & software's is carried out for all the latest applicable technologies in:

- Solid Contact Clarifier, Inclined Plate Clarifier, Clariflocculator.
- Gravity Sand Filter, Rapid Gravity Filter, Auto Valveless Filter, Continuous Sand Filter, Sand/Carbon/Dual Media Filter, Horizontal Pressure Sand Filter.
- Resin based technologies like Softener, Dealkalizer, Demineralizer & Condensate Polisher.
- Membrane based technologies like Micro filtration, Ultrafiltration, Nanofiltration, Reverse Osmosis & Forward Osmosis.
- Oil Skimmer, Plate Oil Separator, Thickener, Centrifuge, Filter Press.
- Activated Sludge Process, Tricking Filter, Waste Stabilization Ponds, Upflow Activated Sludge Blanket Reactor, Moving Bed Bio Reactor, Sequential Batch Reactor, Membrane Bio Reactor.
- Disinfection like Gas Chlorination, Sodium Hypochlorite Dosing, Chlorine Di Oxide Dosing, Ultraviolet System, Ozonation, Mixed Oxidants, Advanced Oxidation Processes (AOP's).
- Chemical Dosing Systems for Pre, Post & Regeneration requirements.

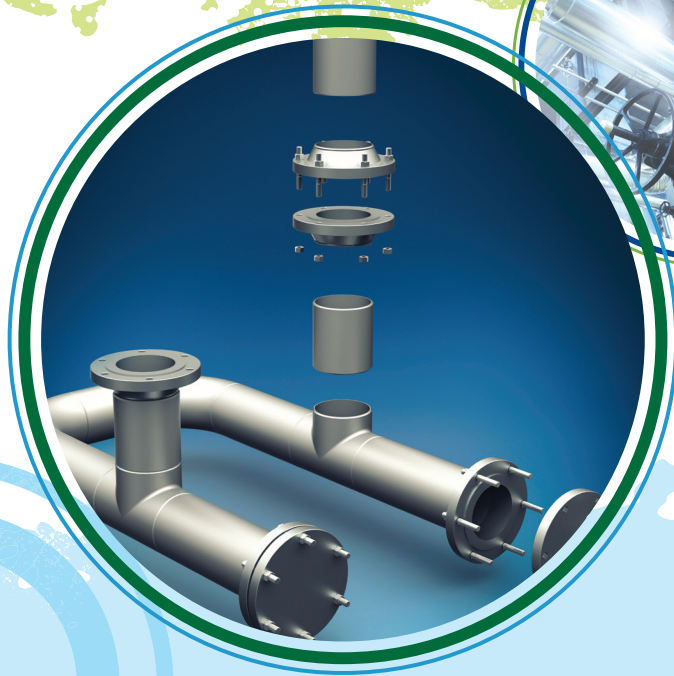


## Basic Engineering Design (BED)

**This is the first step to carryout engineering mainly during pre-bid stage. Accurate & good quality of BED during the pre-bid stage lays the foundation of delivering high end & optimized design & engineering solutions during post bid stage.**

### **It covers:**

- Conceptual process studies, material balances & process flowsheets (PFD's).
- Preliminary piping & instrumentation diagrams (P&ID's).
- Preliminary plot plan.
- Process specifications with definitions & sizing of equipment's.
- Analysis details of feed & treated water/wastewater.
- Development of level 1 bill of quantities/bill of materials (BOQ/BOM).
- Definition of control & safety devices.
- Preliminary electrical load list.



## Front End Engineering Design (FEED)

We give utmost importance & emphasis on optimization w.r.t ease of operation & maintenance, standardization, use of green technologies as applicable so that the drawings & documents form a strong base for detail engineering activities.

### It covers:

- Final piping & instrumentation diagram (P&ID).
- Pressure drop calculations & line sizing.
- Final equipment layout.
- Development of level 2 bill of quantities/bill of materials (BOQ/BOM).
- Valve list.
- Instrument list.
- PLC I/O list.
- Control Philosophy.
- Cable schedule.
- Piping specifications.
- Single line diagram.
- Inquiry datasheets for mechanical, electrical & instruments.

## Detail Engineering

Here, all departments work in perfect synchronization & harmony to achieve successful & best detail engineering output for our client to proceed with procurement & manufacturing.

**This section covers:**

- Final datasheets of mechanical, electrical & instruments based on technical inputs received from sub-suppliers.
- Equipment fabrication drawings.
- Piping layout & isometric drawings.
- Cable tray and power, control & signal cable layout.
- Earthing & lighting layout.
- Structural & support layout.
- Logic & cause/effect diagram.
- Civil foundation drawings with load data.
- Civil tank GA & structural drawings with load data.
- Drainage drawings.
- Management of sub-supplier drawings for bought out & manufactured items.
- Hazop studies.





## Project Management Consultancy (PMC)

• **We work hand-in-hand with our valued clientele to implement turnkey projects for water & waste water treatment in the capacity of complete project management.**

**To highlight few benefits:**

- We will appoint 'Personal Water Manager' a one point contact for your project.
- To maintain confidentiality & security, we open e-account with protection password for each clientele and complete project is stored and managed in this account on a virtual cloud server.
- By outsourcing the project management to us, your various fixed expenditures are converted into variable expenditures and you get enough capital spared that can be invested for your more valuable core activities.
- The perfection and cost structure of a service provider like us will provide an extra edge to your core business.
- By outsourcing project you reduce your involvement in HR practices and save considerable time, money and efforts.
- Outsourcing shortens the completion period and you will get enough time to recheck the quality. By outsourcing project as a whole or in part, you can shift your focus from low value activities towards your client interaction & support.
- Every business investment involves a certain amount of risk. Various aspects related to market, regulations, financial conditions, technologies and competition change very quickly. We as a service provider will help you to manage such risk. So you always remain among the front runners feeling more confident to match the changed requirements of client.
- We help to get approvals on drawings/documents from client/consultants.
- We also help in expediting, carrying out inspection activities to maintain the quality of equipment's.
- Thus implementing complete project management to the entire satisfaction of our clients.

## Installation, Commissioning & Start Up Support

Through our team of experienced site specialists, we undertake supervision of erection, commissioning & startup of water & wastewater treatment plants -

**Which includes:**

- Site planning and scheduling of works.
- Checking and finalization of available resources and civil related works.
- Checking and sorting of the water or wastewater treatment material received at site.
- Preparing installation procedure of various equipment's.
- Carrying out pre-commissioning checks.
- Commissioning of the plant.
- Carrying out performance guarantee runs.
- Maintaining logs.
- Water analysis.
- Finalizing routine and mandatory maintenance schedules.
- Keeping spares/consumables inventory records.

**Our specialists can be stationed at site for any duration till client own staff is trained thoroughly in operation and maintenance of water or wastewater treatment plant.**

To know more get in touch with us!!

- +91 9819 9976 49
- +91 9821 0736 36
- [businessbgs13@gmail.com](mailto:businessbgs13@gmail.com)
- [www.blueandgreensolutions.org](http://www.blueandgreensolutions.org)



"think green & save blue"  
"a water engineering company"