

# **Services**

### Consulting

BTech® has the capability, experience and tools to provide consulting services that allow the customer to take better decisions. For example, in the suggestion of the most appropriate process in the construction of a WWTP or in the proposal of necessary adjustments and upgrades in operating plants.

### Technical advice and diagnosis

Technical advice is provided in everything related to the start-up of wastewater treatment plants, water conditioning plants, biological treatment systems of malodorous atmospheres, as well as treatment and management of biogas.

In addition, IBTech® also performs technical diagnosis in wastewater treatment processes with operational deficiencies that do not fulfill the objectives under which they were conceived. Based on the diagnosis, the client is offered with the best alternatives for improvement or adjustments to the process.



### **Integral Sanitation Schemes**

IBTech® also has experience in the development of integral schemes for the sanitation of watersheds and cities, offering technical-economic solutions to solve the problem at hand.





### Technical-economic evaluation of projects

Support is offered to the client in decision-making to thoroughly evaluate the investment of a water, sludge and/or biogas project and determine its viability at a certain time. As well as, the analysis of the technical and economic factors that could affect its viability positively or negatively.

### **Process Simulation**

IBTech® engineers use calculation memories, process simulators and data analysis to establish the operating conditions that must be controlled to optimize the process.



**Projects** The company has properly trained staff to develop studies, engineering and field work required to install new modulated plants (or expand the actual ones) to increase their capacity in the future if necessary.

## "Turnkey" Projects

IBTech® is qualified to accomplish a complete project, since the wastewater characterization, until the delivery of a stable-operating plant. The "Turnkey" projects include: basic engineering, detail engineering, equipment supply, civil works, electromechanical construction and assembly, pre-operational tests and finally, the start-up of the system. Under this modality, resources are optimized, allowing our clients to delegate the tasks inherent to the execution of the project, while actively participating.





# **Engineering** Executive projects (engineering only))

If the client decides to assume the tasks of procurement and construction, IBTech® can execute only some aspects of the project such as basic and detailed engineering. However, it is highly recommended that IBTech® carries out the start-up and supervision of the project, especially in anaerobic processes.





### **On field** Supervision of the work and commissioning

It is company policy to put into operation treatment systems under IBTech®s design, particularly in the case of anaerobic biological treatment, as it is the best way to ensure its correct operation in an optimal timeframe.

In addition, the company offers services for the biological (aerobic or anaerobic) plants commissioning, as well as operation and routine maintenance services of any WWTP.



#### **Opertion of plants**

IBTech® is an expert in problem solving related to the operation and stabilization of any kind of wastewater treatment plants, whether it is physicochemical or biological (aerobic and anaerobic). In any case, the company will always fulfill the water quality established in the legislation or the one which was internally established by the client.

Likewise, the company also offers advice and monitoring services for the operation of treatment plants.



#### Rehabilitation of existing plants

Any necessary work can be done to rehabilitate, modernize or increase the capacity of already built plants, regardless of the process for which they were designed.





#### **Pilot plants**

IBTech® has extensive experience in designing and operating pilot plants, which reduce the risk associated with the construction of large-scale plants, if they have been designed and operated properly. The decision to install a pilot plant to experiment with different design and/or operating conditions must meet, preferably, the following requirements:

- a) Be a manageable and operable installation to carry out tests with ease, without the complexity and cost of an actual installation and without the simplicity of laboratory experiments.
- b) Be a flexible installation.
- c) Be a lasting installation.
- d) Be a reliable installation.
- e) Be a representative installation of the kinetic, mass and energy transfer and hydraulic conditions of the real installations
- f) Be a movable and easily transportable installation
- g) That its design allows to save time in the data and results acquisition
- h) That its design allows to minimize the risk of failure in the operation of the plant.



#### Training

Promoting sustainable technical solutions is part of IBTech®s mission; so for the company, training is a key activity in order to disseminate and generate skills in companies, water operator agencies and independent consultants on foundations, concepts, case studies, design, applications and/or laboratory techniques used on wastewater treatment, water conditioning for first use and biogas utilization. The above, oriented to the design and operation of physicochemical, anaerobic, aerobic biological and for nutrients removal systems as well as the process control elements.



For more information visit the page www.ibtech.com.mx/capacitación

## Others Water characterization

The sampling, laboratory and analysis of results services are essential for the commissioning and monitoring of wastewater treatment and biogas conditioning plants. IBTech® can support in the implementation of characterization campaigns that include specialized laboratory analysis such as:

- Physicochemical and microbiological analysis
- Test of methanogenic activity in sludges
- Toxicity tests
- Tests for the treatability and biodegradability of liquid effluents, by physicochemical, aerobic or anaerobic.
- Laboratory-level tests.



## Supply of granular anaerobic sludge

Having an inoculum of granular anaerobic sludge in excellent conditions with high methanogenic activity is essential to start efficiently reactors UASB, EGSB or other anaerobic systems. IBTech® can handle the transport, supply and loading to the biological reactor of the sludge and even the start-up of the biological reactor.

IBTech® is a 100% Mexican company with more than 22 years of experience, dedicated to the diagnosis, design, construction, start-up and operation of water treatment plants, as well as biogas generation plants and energy from biomass.

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