



WELCOME TO OUR BUSINESS

As a leader company in fabrication for equipment in the sector of water and wastewater treatment, TIBA Mechanical and Electric can offer its prestigious clients state of the art products, as it possesses the technical experience, specialized staff, and necessary equipment to provide the clients' needs.

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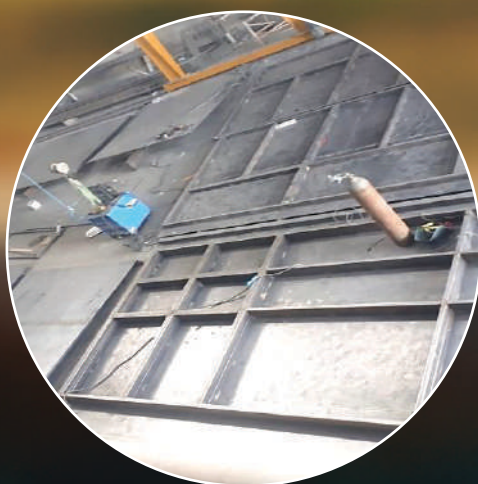
OUR MISSION

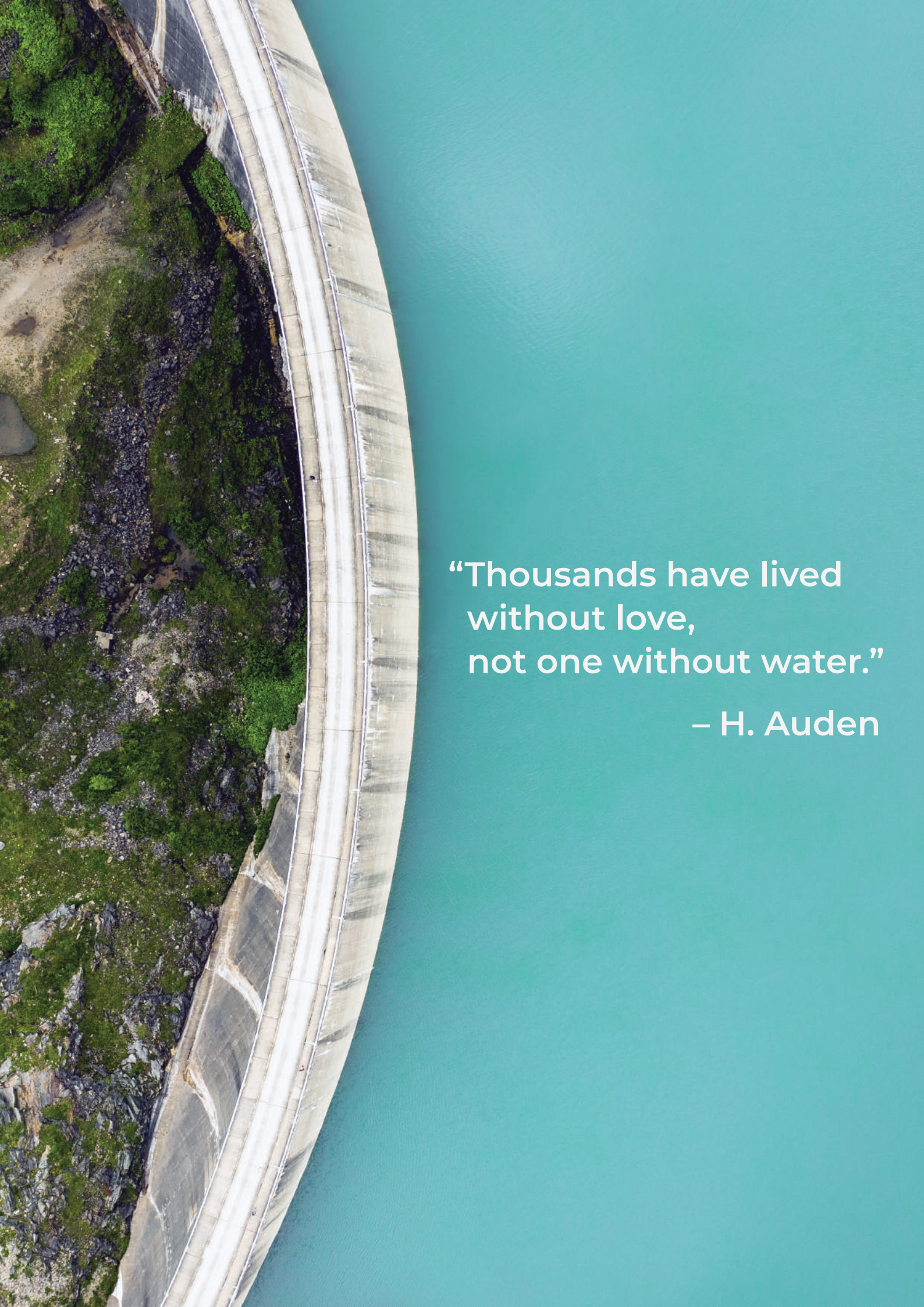
- » High quality water product
- » system low power consumption
- » High reliable products
- » High quality products



Vision

To be our clients first choice in providing water and wastewater equipment, to be a market leader in manufacturing industry, topping local and foreign competitors.





“Thousands have lived
without love,
not one without water.”

– H. Auden

Compact Wastewater Treatment Plants

Compact wastewater treatment plants are providing an economical, simple, and reliable method for the treatment of wastewater. The technology utilized is mainly activated sludge method.

The design is standardized with availability to system modifications to accommodate client requirements, where our units are factory prefabricated, and on site assembled to save time.



Product Specifications

- » Range and Capacity: 50 – 2000 m³/day.
- » Technologies:
 - SBR (Sequential Batching Reactor).
 - MBBR (Moving Bed Bio Reactor).

Applications & Sectors

- » Compounds, camps and resorts
- » Villages, small and new cities

Advantages:

- » Total wastewater solutions with high quality material construction and components.
- » Consistent high-quality effluent with international standard.
- » Compact plant reducing footprint.



- » Rapid installation with prefabricated or site assembled modules.
- » Process selection capable of dealing with varying hydraulic and pollution loads.
- » Proven, simple, and reliable process elements.



Nothing is softer or more flexible
than water, yet nothing can resist it.

- Lao Tzu

Water Treatment Units

Water treatment units are used for surface water treatments, they are essential for ensuring safe and clean water for various uses, including drinking, irrigation, industrial processes, and wastewater management.

Features:

- » Containerized water treatment units used for surface water with capacities up to 2000 m³/day.
- » Used technology: Conventional or Ultrafiltration.
- » Treatment system suitable for surface water according to water analysis to remove any pollutant (Mn, Iron, BOD, COD, sand, grease, bacteria or microorganisms, etc).
- » Low power consumption (High system efficiency) lowest cubic meter cost.
- » High quality water product
- » Small footprint area required for the unit establishment.
- » Long life components such as membranes, pumps, pipes, etc.



Applications:

- » Villages and small cities

Water Desalination Units

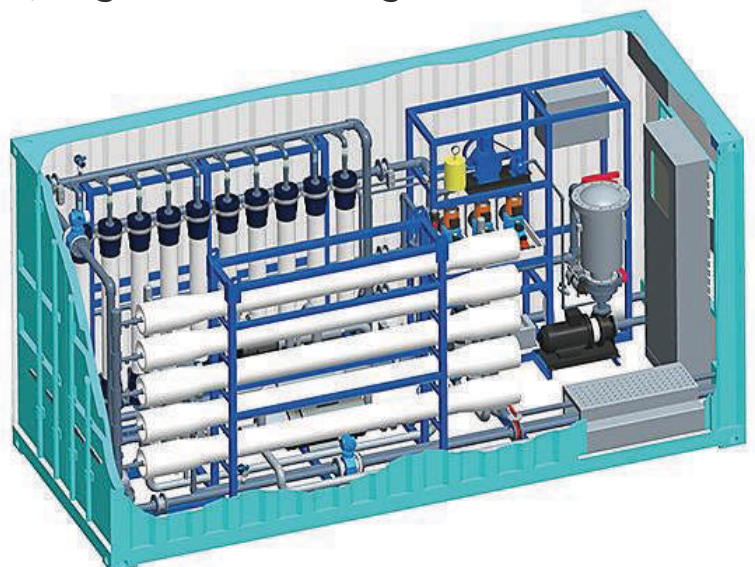
Water desalination units are systems designed to remove salt and other impurities from seawater or brackish water, making it suitable for human consumption, agricultural irrigation, or industrial use.

Features:

- » Containerized desalination units used for brackish and sea water with capacities up to 2000 m³/day.
- » Sea water desalination units up to 42000 TDS salinity.
- » Pretreatment system suitable for raw water according to water analysis to remove any pollutant (Mn, iron, BOD, bacteria or microorganisms).
- » Best Power absorption (High efficiency system) lowest cubic meter cost.
- » Suitable materials for the application vary from UPVC to stainless steel to duplex stainless steel material.
- » High quality water product
- » Very good monitoring for all parameters during process stages.
- » Long life components such as membranes, pumps, pipes, etc.

Applications:

- » Resorts, compounds, touristic villages, irrigation & drinking water applications.





Pressurized Vessels

A. Water hammer protection systems (Surge Tanks)

Water hammering Antisurge Tanks used for protection systems against water hammer, and is a crucial equipment in water and wastewater projects.

Applications:

- » Pumping stations and lift stations pipelines.

Advantages:

- » Pumping stations and lift stations pipelines

- » Tanks are manufactured according to different codes depend on client request and application.
- » High grade materials for fabrication and construction.
- » High Quality fabrication and coating to accommodate water or wastewater applications or any other application.
- » All Necessary Quality tests carried out for welding, hydrostatic and dry film coating.

Product Specifications

- » Height: up to 8 m.
- » Diameter: up to 2.5 m
- » Material of construction: Carbon steel epoxy coated
- » Working pressure: Up to 10 Bar.
- » Code of fabrication as consultant or client request

Pressurized Vessels

B. Pressurized Filters

Pressurized filters are essential equipment in various water treatment projects, where unfiltered water is pumped through filtration medium to produce filtered effluent.



Applications:

- » Waste water (Tertiary treatment), Treated water, pretreatment for Desalination plants.

Product Specifications

- » Vessel type: Horizontal and vertical filters
- » Diameter: up to 3 m
- » Material of construction: Carbon steel or stainless steel.
- » Working pressure: Up to 6 Bar.
- » Face piping: UPVC, HDPE or any other material according to customer request
- » Operation: Automatic or Manual operation with all necessary instruments and accessories.



Features

- » Wide range of sized, and configurations, for various applications and capacities.
- » High grade materials for fabrication and construction.
- » High quality coating protection with consideration to the nature of filtered medium.
- » Easy installation and maintenance characteristics
- » All Necessary Quality tests carried out for welding, hydrostatic and dry film coating.

Steel Tanks

Tanks are integral parts of industry and construction projects, especially in water and wastewater industry construction projects. Our steel tanks provide the modularity, adaptation to various applications, and flexibility in manufacturing and assembly to serve the industry in an appropriate manner. Our Tanks are manufactured and assembled according to API 650.

Product Specifications

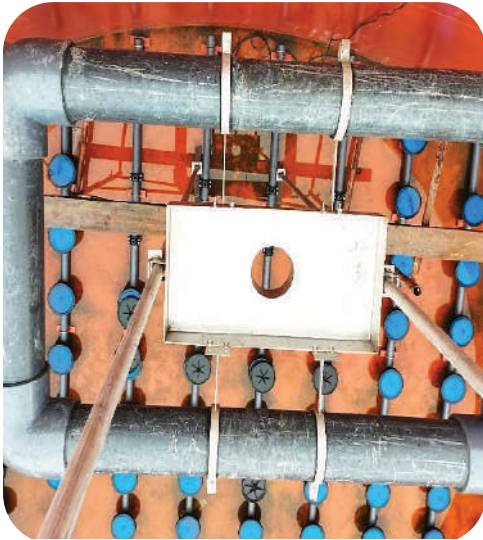
- » Material of construction: Carbon steel.
- » Tank volume: up to 1000 m³.
- » Tank shape: Circular - Rectangular.
- » Circular tank diameter: up to 15m.
- » Rectangular tank length: up to 12m, width: up to 4m & height: up to 4m.
- » High quality coating protection materials according to application and medium
- » Stairs, handrail, walk ways and all accessories according to design or customer request
- » All Necessary Quality tests carried out for welding, hydrostatic and dry film coating



Applications

- » Wide range of sized, and configurations, for various applications and capacities.
- » Water treatment, desalination and wastewater treatment process.
- » Water storage application.
- » Petroleum products storage.
- » Sludge storage and sludge treatment process



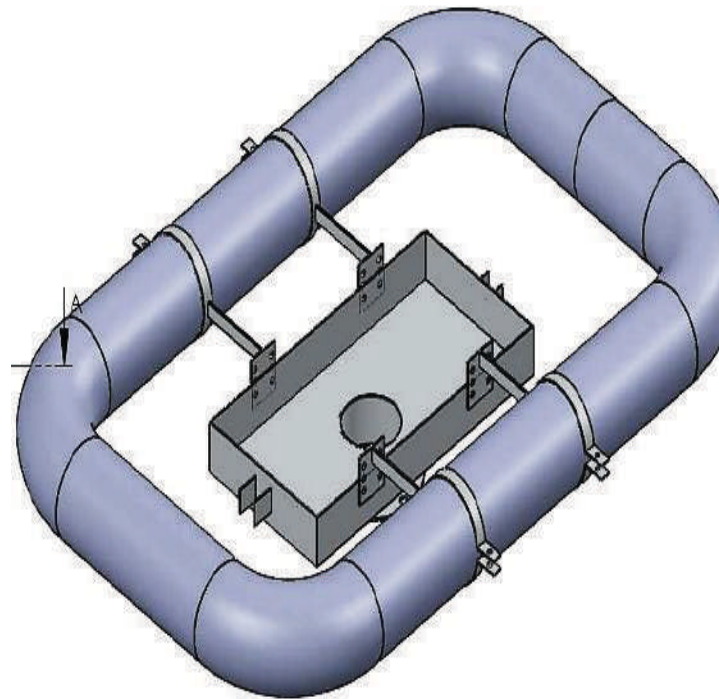


Decaners

Decaners (Surface Water Extractor) is an equipment designed to discharge the clearwater layer below the surface and block bulking sludge and floatable. The decanter is positioned by (optional) guiding system.

Applications

- » SBR wastewater treatment plants.
- » Continuous surface water extraction.
- » General decanting purposes.



Product Specifications

- » Flowrate: 20 – 200 m³/hr.
- » Shape: Rectangular – Circular
- » Basin Material: SS304, 316 SS (Other material available on request).
- » Supporting rails: SS304, 316SS (Other material available on request).
- » Standard discharge system: PVC hose (Other material available on request).

AIR DIFFUSERS

Our TA Flex disc diffusers offer functional flexibility and maximum aeration performance, with multiple membrane perforations for superior operating efficiency, optimized operating pressure, and air handling capability.

Product Specifications

- » Type: Coarse – Medium – Fine.
- » Body and Frame: Polypropylene (PP 30% FB).
- » Locking Nut: Polypropylene (PP 30% FB).
- » Membrane Material: EPDM.
- » Size: 12 Inch.

Application

- » Inlet works, aeration tanks, equalization tanks and sludge tanks for WWTP.

Features

- » TA Flex are high performance disc diffusers that can be used in municipal and industrial WWTP.
- » High oxygen transfer efficiency up to 7% per meter water height (fine bubble).
- » High quality, performance and long life.
- » Can be operated intermittently and have broad working range.



BASKET STRAINER

Basket Strainer is a closed vessel with cleanable or removable screen or element for removing particles from liquids.

Product Specifications

- » Size: 3 inch (80mm) – 20 inches (500mm).
- » Body Material: Carbon steel – Stainless steel 304 or 316 SS.
- » Mesh or strainer material: Stainless steel material 304 or 316 SS.
- » Straight through flow design
- » Low pressure losses.

Applications:

- » Pumping stations suction lines

Features

- » High quality construction.
- » Easy and low maintenance cost.
- » Low installation cost.
- » Low capital investment.
- » All Necessary Quality tests carried out for welding, hydrostatic and dry film coating



BASKET SCREENS

Basket Screens are type of coarse screens used in pretreatment units to protect the subsequent equipment from possible damages and separate relatively large contaminants and to enhance further treatment processes.



Product Specifications

- » Bar type: Circular or Rectangular cross-section
- » Bar Spacing: 10 mm – 50 mm.
- » Screen width: up to 2000 mm.
- » Screen height: up to 2500 mm.
- » Material of construction: SS304, SS316 or galvanized steel.

Applications

- » Pre-treatment for domestic sewage treatment plants.
- » Industrial wastewater treatment plants.
- » Pumping stations.
- » Reservoirs and inlet structures.



Odor Control Systems

Odor control systems are used to remove any odor smells from any sewage or waste water to keep air clean from any bad smells.

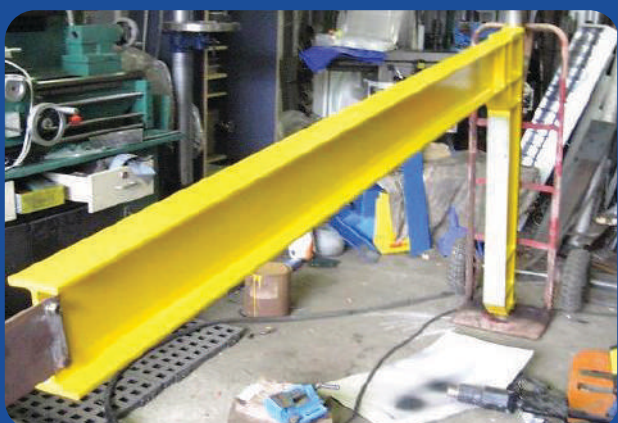
Features

- » Remove odor smells as H_2S & NH_3 with 99.9% efficiency
- » Capacities up to $10000\text{ m}^3/\text{hr}$.
- » Activated carbon absorption technology.
- » Scrubber is made of fiber glass or PVC materials.
- » All system components are made from noncorrosive materials.
- » Reliable system.
- » Low capex and opex costs for the system.

Applications

- » Inlet works, lift stations and septic tanks for sewage applications.





JIP CRANES

Our floor mounted jib crane normally works with manual or electric hoist which consists of fixed column, rotating arm, rotation drive mechanism. This structure is widely used in industry and in various sites in lifting equipment during normal operation and during maintenance.

Features

- » Unique structure, safe and reliable, high efficiency and flexible.
- » Can be customized according to client's requirements.
- » Safer, reliable, using free maintenance design.
- » Easy installation.

Product Specifications

- » **Load capacity:** up to 3 Ton.
- » **Lifting height:** 1 – 20 m.
- » **Arm length:** up to 5 m

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