





# SUJAL ENVIROTECH PVT LTD

**Online Sludge Management System** 

www.sujalenvirotech.in

#### **About SUJAL & Its Services**

Sujal Envirotech Pvt. Ltd. specializes in the design, engineering & manufacturing of effluent treatment systems. It further offers operations of Online Robotic Cleaning Systems & Online Robotic Sludge Removal and Dewatering Systems, Tertiary Treatment and Recycling of Leachates and Industrial Effluents.

SUJAL is introducing here "Online Robotic Sludge Removal and Management Services" for Oily Sludge Lagoons, Water Reservoirs, Effluent Tanks, Crude Oil Tanks, Acid Tanks, Cooling Tower Basins, Forebays, Sea water basins and many more. The conventional manual cleaning of tanks with its Industrial cleaning robots that provide the highest safety and "NO PRODUCTION LOSSES" to our esteemed clients



# **Robotic Sea Water Basin Cleaning**

Accumulation of silt and marine growth in sea water intake basins and cooling tower basins causes frequent choking in cooling water network and results in efficiency reduction of the system. Conventional systems of cleaning sea water intake basins and cooling tower basins are dependent on entry of human divers in the bottom of the basin and cleaning with the help of suction pipes which may prove to be unsafe, time consuming and inefficient

SUJAL offers Online and No Man Entry based Robotic systems that can remove the silt and marine growth of shells upto 4" in size without any human entry into the basin and without a shutdown of the process. Robotic cleaning has proven to be faster, safer and highly efficient, providing our clients the benefits of Zero Production Losses and Highest Safety Standards for cleaning of their basin



### Online Robotic Sludge Removal & Dewatering Services.

Accumulation of sludge in the bottom of tanks, basins, lagoons, reservoirs tend to be a herculean task to clean with the existing conventional cleaning systems that involve manpower, vacuum suckers and so on, leading to high downtime, high labour involvement, inefficient cleaning and huge production losses. Not to ignore the dangers involved in hiring manpower for doing such tasks that can lead to various safety violations and health issues.

Sujal provides Online Robotic Sludge Removal and Management services which follow a "NO MAN ENTRY' concept and a "NO SHUTDOWN" concept, proving to be one of the most efficient and safest ways for sludge management in the industry.



Sludge Removal from ESR Tank for Drinking Water



Oily Sludge Lagoon: Robotic sludge Removal



Robotic Phosphoric Tank Sludge Removal



Robotic Sludge Removal in Cooling tower Basins



ETP - STP Tank Sludge Removal



Online robotic Forebay Cleaning in Power Plants

### **Major Applications**

Cooling tower basin cleaning

**Oily Pits Cleaning** 

**ETP Tank Cleaning** 

**API separator Cleaning** 

Phosphoric tank sludge cleaning

Phosphoric lagoon cleaning

Tank cleaning

Forebay cleaning in thermal plants

Acidic sludge removal

Many other segments

Fire water pond sludge removal

Lagoon sludge removal

# **Unmanned Remote Controlled Dredging Services**

Sujal provides unmanned dredge system that works remotely with wireless remote and is capable of cleaning reservoirs and lagoons in an online condition without man entry

System can remove silt, sludge, ash and other settled solids from reservoirs, lagoons, basins with a pumping capacity of 150 m3/hr and more.

The remote-controlled dredges are ideal solutions for dredging in complex and difficult environments. With minor modifications or addition of accessories, it can be used for a wide range of applications from ports, lagoons, basins, ponds, quarries, mines to industrial & municipal basins.



### Oil Removal & Separation Services

#### Floating Oil Removal & Separation (FORS)

Operates mobile Floating Oil Removal and Separation (FORS) systems which removes floating oil along with suspended sludge from complex industrial structures such as cooling towers, holding pools, lagoons, tanks and water bodies using floating skimmers, pumps and separates the oil, water and solids from each other in its mobile treatment system.

#### **Automated Systems for Floating Oil Recovery & Separation (FORS-A)**

These systems are standalone, require minimum intervention or control from supervisors. FORS-A can be controlled from a remote center using software systems.

#### Slop Oil Removal & Recovery For Reprocessing

Slop oil is a common factor in refineries. Everyday unwanted slop is produced in process and stored in slop tanks. This takes lot of space, is hazardous and revenue lost for refinery. We do complete slop recovery from tank, separation of crude and sediments. The recovered oil with BS&W < 3% is pumped to the client's tank or header line for reprocessing.



#### Why SUJAL FORS-A

- · One-time setup for long duration.
- · Software controlled operations.
- · Automated oil recovery operations.
- · Minimum periodic maintenance required.
- Remote management possible from offsite locations.
- Complete real-time data of operations and historic data access.
- · Very high output efficiency and quality.

# No Man Entry Crude Oil Tank Cleaning

Large refineries and petrochemical companies hold heavy oils, as crude oil, in large tanks. With time, heavy sediments accumulate at the bottom of the tanks, partially obstructing the tank & preventing its proper and economical operation. Cleaning such tanks requires a massive work force & long shut-down periods. Furthermore, petrochemical companies do not accept the sediments for re-use.

We provide robotic arms with high pressure pumps for removal of deposited in sludge in the tank and a mobile physio-chemical treatment system to recover oil, recycle water and obtain dry cake with oil content less than 10%. Our systems are designed for No Man Entry cleaning concept. "MINI" robots are used for final cleaning stage of the tanks.

- · Lower direct costs of cleaning.
- Recycling of up to 95% of sediments that can reused by customer.
- Reduced cost in disposal of only 5% (Five Percent) of sediments which require special post-treatment.
- · Substantially shorter shut-down time





#### Sujal Envirotech Pvt Ltd

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