PARASON

Effluent Treatment Plant & CBG/Bio CNG

Leading the Way in Environmental Solutions

Trash to Treasure™... Parason ETP System

Our solutions are designed not just to reduce environmental footprints but also to maximize returns on your capital.

EFFECTIVE PLANNING WITH
PRECONSTRUCTION & PROJECTS IMPLEMENT

Our technologies continue to lead with the highest quality Dissolved Air Flotation (DAF) products and with unmatched expertise in wastewater engineering applications of DAF.

Our innovative and cost-effective technologies are the remedy to contaminated water sources, prevent further pollution, and recover valuable materials.Parason DAFs are providing the solution to wastewater treatment and recovery of resources.

UNLOCKING SUSTAINABLE SOLUTIONS: PARASON

At Parason, we embark on a journey of innovation, sustainability, and environmental stewardship. As a leading force in the domain of effluent treatment plants, anaerobic digesters with bio-CNG production, and municipal solid waste management, we take pride in our unwavering commitment to creating a cleaner and greener world.

Our Vision

Our vision is to reshape the future by harnessing nature's own processes and transforming waste into a valuable resource. Parason envisions a world where sustainable practices, renewable energy, and responsible waste management are at the forefront of global industry.

Who We Are

Established with a deep-rooted passion for environmental protection and resource conservation, Parason is a name synonymous with excellence in designing, constructing, and delivering state-of-the-art solutions for the most pressing environmental challenges.

Our Expertise

ETP Solutions: We turn wastewater into a valuable resource while ensuring environmental compliance.

Bio-CNG from Anaerobic Digestion: We create renewable energy and reduce emissions from organic waste.

Municipal Waste Management: Cleaner, safer, and more sustainable communities with our solutions.

Why Parason?

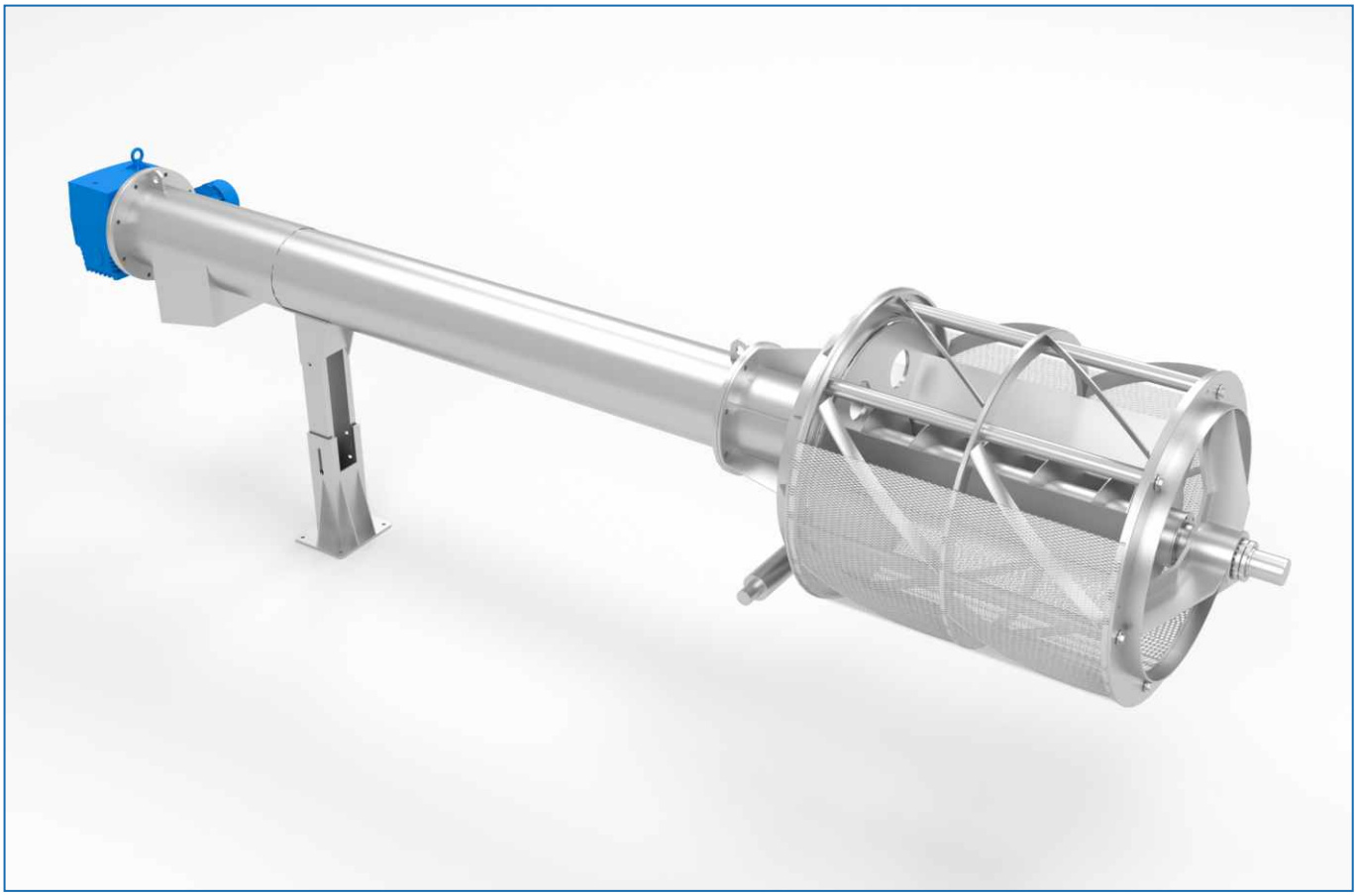
Innovation: We embrace cutting-edge technologies and innovative practices to offer you the best solutions in the industry.

Sustainability: Our projects prioritize sustainability and environmental responsibility.

Quality: We are committed to delivering projects of the highest quality, ensuring long-term performance and reliability.

Customization: Each project is tailored to the unique needs and goals of our clients.

ROTARY DRUM SCREW



Process description:

The ROTARY SCREEN serves the purpose of separating solids and liquids efficiently, especially in high-flow situations. This innovative system combines filtration and compacting operations in a single unit. It incorporates a screen basket made of either perforated sheet or wedge wire, which acts as a reliable filter while rotating along with the transport screw.

The transport section leads to a compacting/dewatering module, which offers the option of a chute or a bagging system. The screenings are conveyed by a shafted screw until they reach the compacting/dewatering area, where both the volume and weight of the materials are significantly reduced.

Operational Advantages

- → Superior segregation capability
- → Elimination of unintended bypass
- → Exterior setup/environmental placement
- → low servicing requirements

Technical Specifications:

Model	DS 0.6	DS 0.8	DS 01	DS 1.2	DS 1.4	DS 1.6	DS 1.8
Flow Rate (m3/hr)	64	100	200	250	360	470	600

DISSOLVED AIR FLOTATION - DAF

Flotation cell

The Flotation cell is a reliable and straightforward clarifier that efficiently eliminates both floatable and settable solids from water suspensions, resulting in the production of clear water. Its primary method of operation is Dissolved Air Flotation.

The process commences by introducing raw water into a central distributor, where it combines with air released from an air carrier water. Through the assistance of air bubbles, the flocculated solids are transported to the water surface, while the heavier particles settle at the bottom of the tank. The clear water situated between the floated and settled solids is subsequently discharged through an adjustable weir's overflow.

When combined with appropriate chemical, removal rates of Total suspended solid is 95% or even higher are commonly attained.

Furthermore, the Flotation cell is particularly well-suited for facilitating fibre recovery within the pulp and paper industry.

Operational Advantages

- → Efficient Removal of Contaminants
- → Fibre Recovery
- → Compact Footprint
- → High Flow Rates
- → Consistent Performance
- → Improved Settling Characteristics
- → Pre-Treatment for Other Process

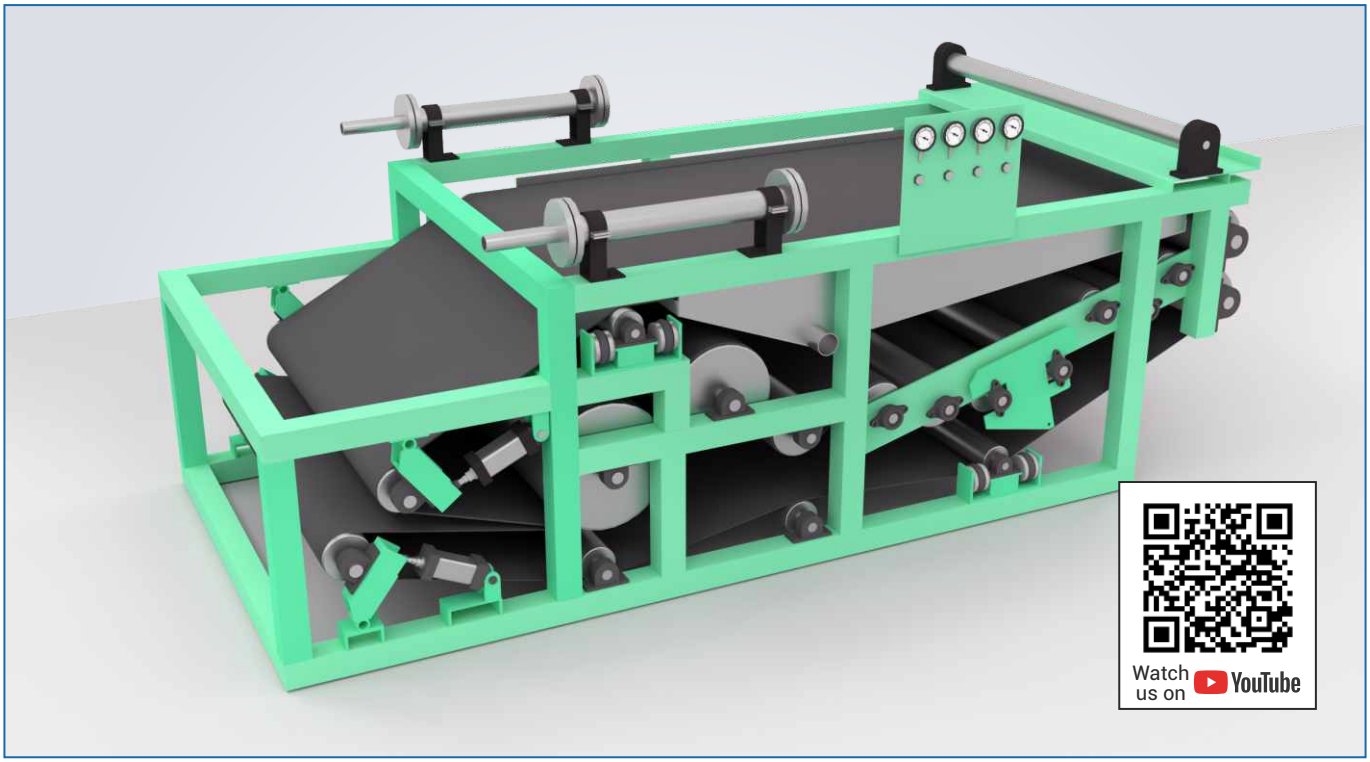
Watch us on YouTube

Technical Specifications:

Model	FC-08	FC-10	FC-12	FC-15	FC-18	FC-20	FC-22	FC-24	FC-27	FC-30	FC-36	FC-40
Flow Rate (m3/hr)	20	30	50	80	115	150	170	200	250	300	400	500

*Above model is designed for 2000 PPM Inlet TSS.

BELT FILTER PRESS



Application & Unique Features

Application & Unique Features Parason Belt Filter Press is designed for squeezing sludge for various industries application from primary/secondary clarifier and Deinking process.

The Belt Filter Press is efficiently designed to squeeze sludge from 2 to 3% consistency by adding polyacrylamide based flocculent. This helps in beer drainage to achieve 25 to 28% consistency.

Operational Advantages

- → High Dewatering Efficiency
- → Continuous Operation
- → Space-Efficient Design
- → Simple Operation
- → Energy Efficiency
- → Sludge Volume Reduction

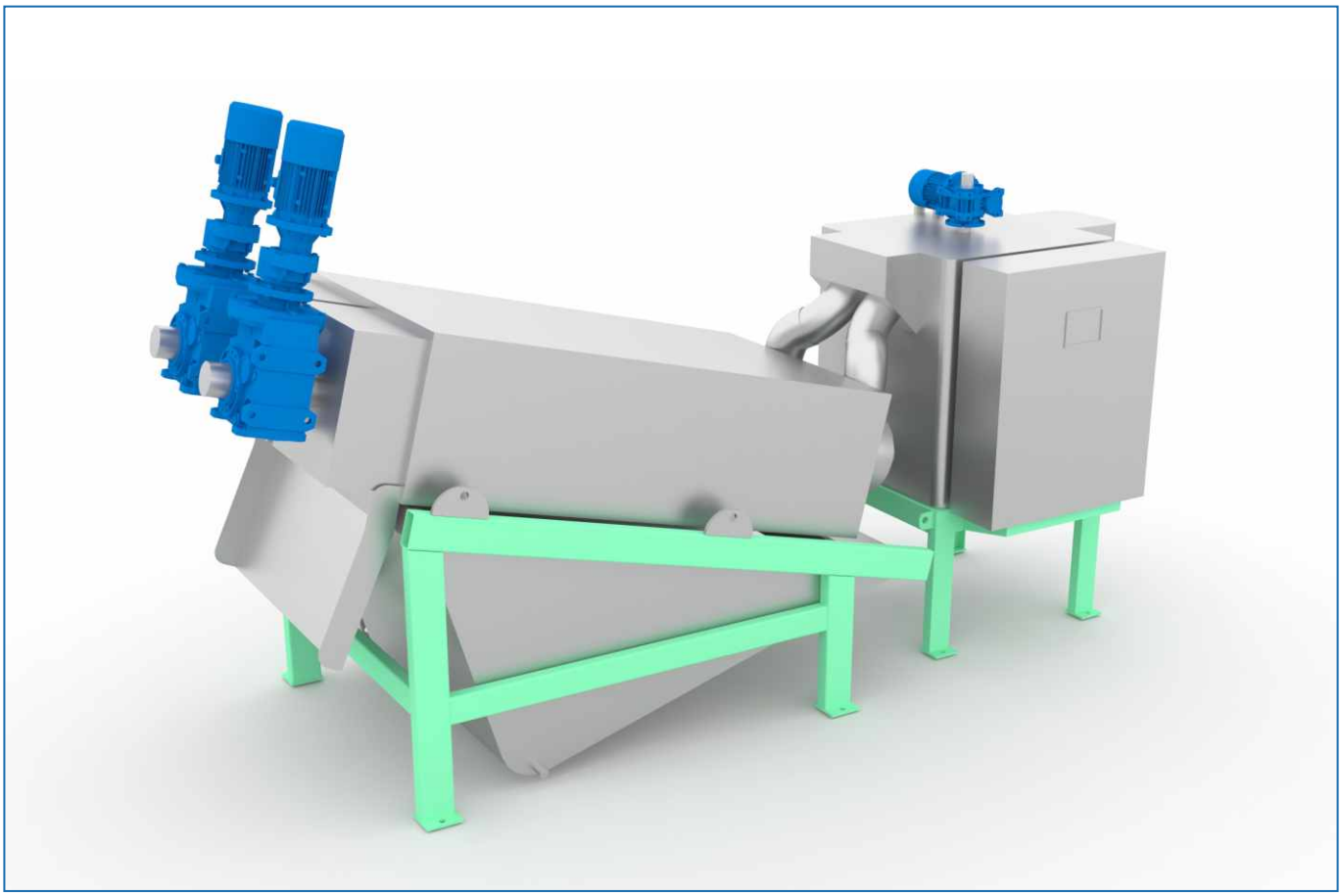
Sectors

→ Pulp & Paper | Textile | Leather Industries | Chemical Industries | Pharma & Cosmetic Industries

Technical Specifications:

Model	BFP0.7	BFP1.1	BFP1.6	BFP2.1	BFP2.7
Belt width mm	700	1100	1600	2100	2700
Throughput (Kg-DS/h)	88	138	200	263	338

SLUDGE SCREW PRESS



Process description:

The Sludge Dewatering Screw Press is a compact unit that combines three key functions: conditioning, thickening, and dewatering. It operates continuously and automatically, efficiently removing moisture from sludge to achieve an outlet consistency of up to 25%. By using this equipment, the need for a Sludge Thickening Tank and Filter Press is eliminated, resulting in a smaller footprint and reducing the manpower required for cleaning the dewatering equipment and discharging the sludge.

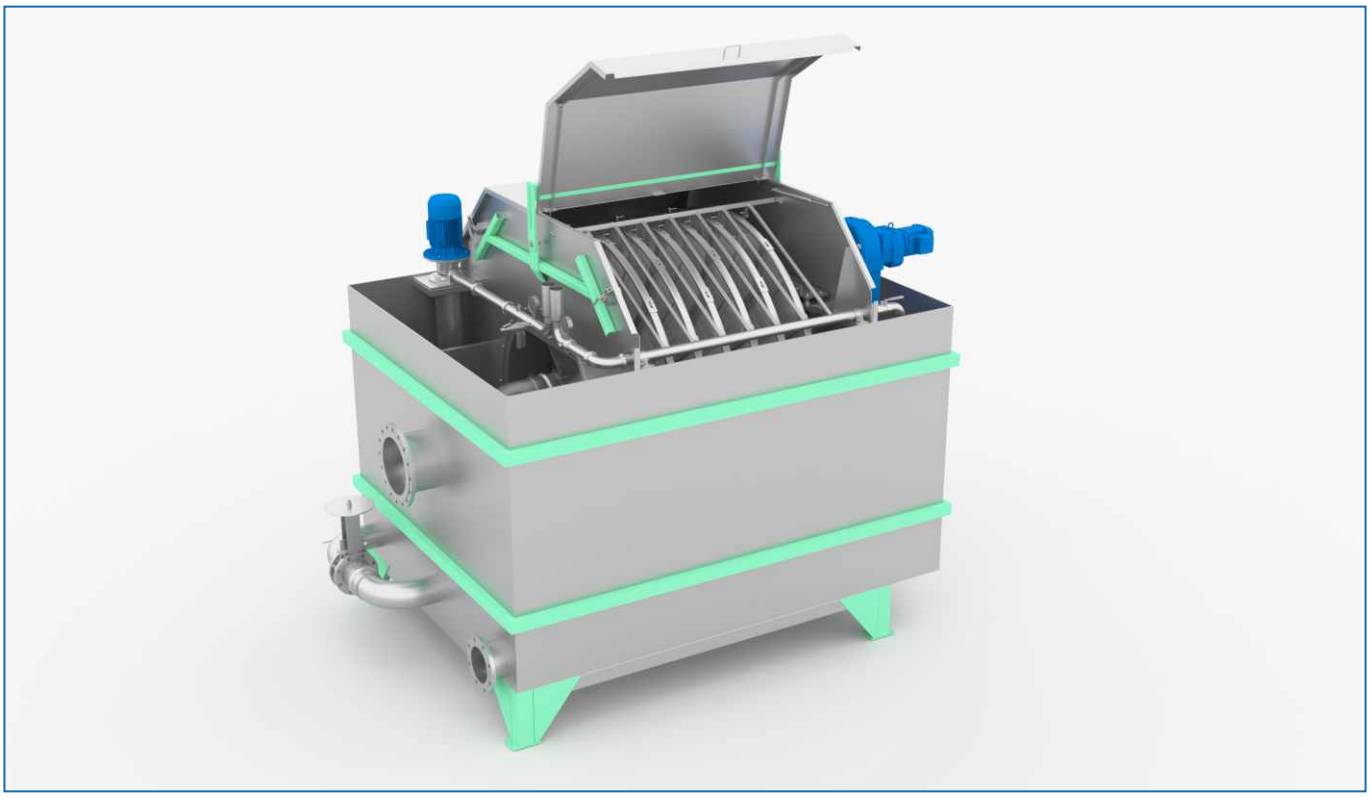
Operational Advantages

- → Efficient Dewatering
- → Cost Savings
- → Reduced Environmental Impact
- → Improved Sludge Handling
- → Energy Savings
- → Enhanced Process Stability
- → Compliance with Regulations

Technical Specifications:

Model	SSP-3	SSP-6	SSP-10	SSP-15	SSP-20	SSP-25	SSP-30
Inlet Flow (m3/hr) @1%	3	6	10	15	20	25	30
Throughput (KG-DS/H)	30	60	100	150	200	250	300

FIFTY FILTER - MICRO FILTRATION UNIT



Process description:

Treated water from the central feed drum flows downward by gravity into the filter Sector. At the start of the filter cycle, the filter assembly remains stationary. Any impurities larger than the mesh opening size become trapped on the inner side of the filter's Sector.

As impurities accumulate on the filter cloth, the flow of water gradually decreases, causing the water level in the drum to rise. Once the water level probe detects this rise, the filter discs begin rotating, initiating a backwash process. High-pressure backwash nozzles are used to direct the trapped impurities towards the sludge trough.

During the backwash cycle, the water level decreases to a pre-set minimum level, and once reached, the rotation of the unit stops. At this point, filtration resumes at maximum capacity, and the cycle repeats itself. The filtration process continues uninterrupted and continuously. Feed water contains150-200 PPM TSS in fifty filter & Less than 50 PPM TSS can be achieved at outlet of fifty filter.

Operational Advantages

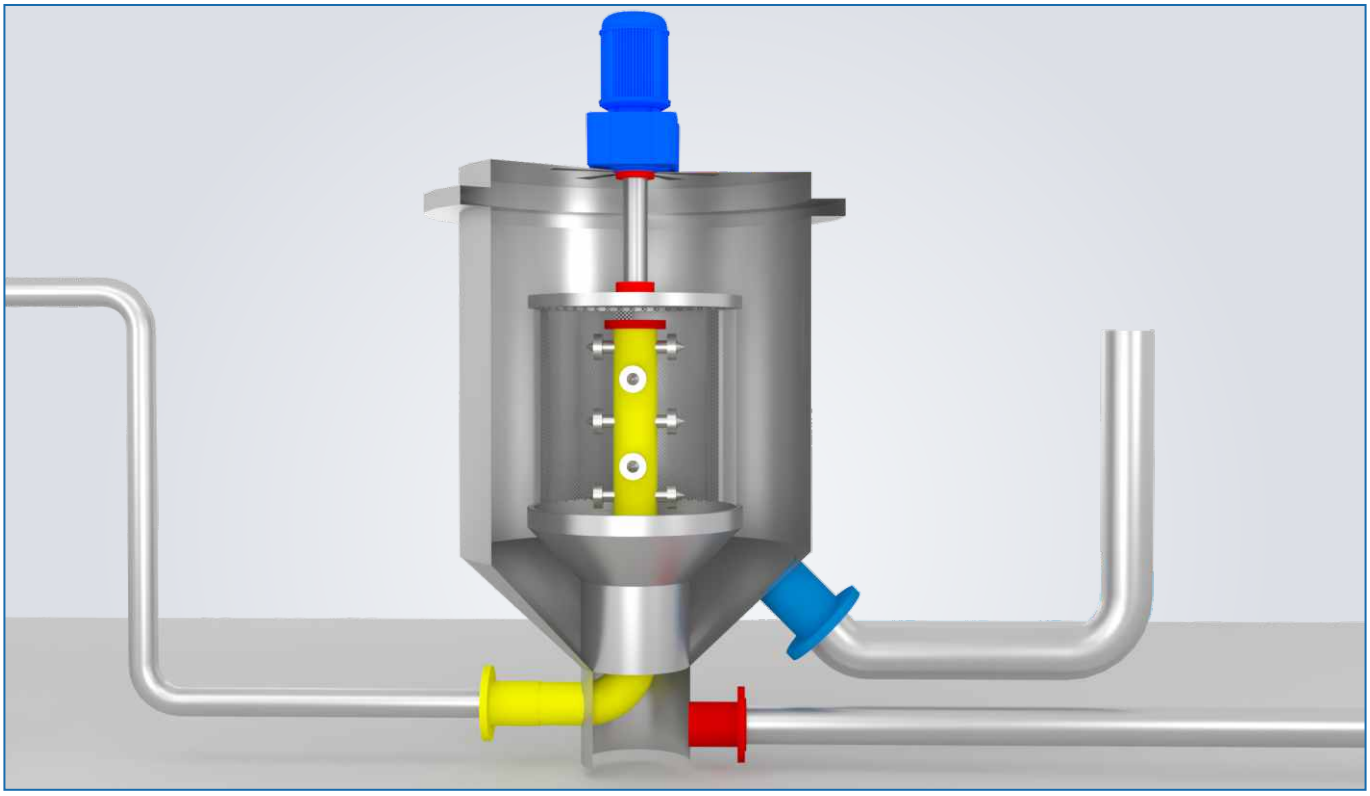
- → Efficient Removal of Contaminants
- → Fibre Recovery
- → Compact Footprint
- → High Flow Rates
- → Consistent Performance
- → Improved Settling Characteristics
- → Pre-Treatment for Other Process

Technical Specifications:

Model	FF-6	FF-10	FF-14	FF-18	FF-22	FF-28	FF-30	FF-34
Flow Rate (m3/hr)	40	70	100	130	160	190	220	250

*Above model is designed for 200 PPM Inlet TSS.

SPRAY FILTER FRACTIONING SCREEN



Efficiency & Protection

This advanced water treatment system is renowned for its effectiveness in separating fine and coarse particles. It features a straightforward and dependable operation with minimal moving components. Water is introduced through the lower inlet pipe, directed by specialized nozzles in a distribution header to a 400-mesh fabric screen. This screen efficiently captures particles larger than 50 microns while permitting smaller ones to pass through. The screen is affixed to a rotating drum, ensuring consistent performance.

This filtration process yields precise separation of particles, effectively trapping those exceeding 50 microns and enabling finer particles to pass. Maintenance is simplified by a generous access window, and the system is self-cleaning, eliminating the need for freshwater and contributing to cost savings.

Features & Benefits

- → Excellent fibre recovery
- → Sludge control and water reuse.
- → Self-cleaning components.
- → Effective Filtration
- → Simplicity of Operation
- → Ease of Maintenance

Technical Specifications:

Model	500	1000	2000	3000	4500	6000
Flow LPM	500	1000	2000	3000	4500	6000

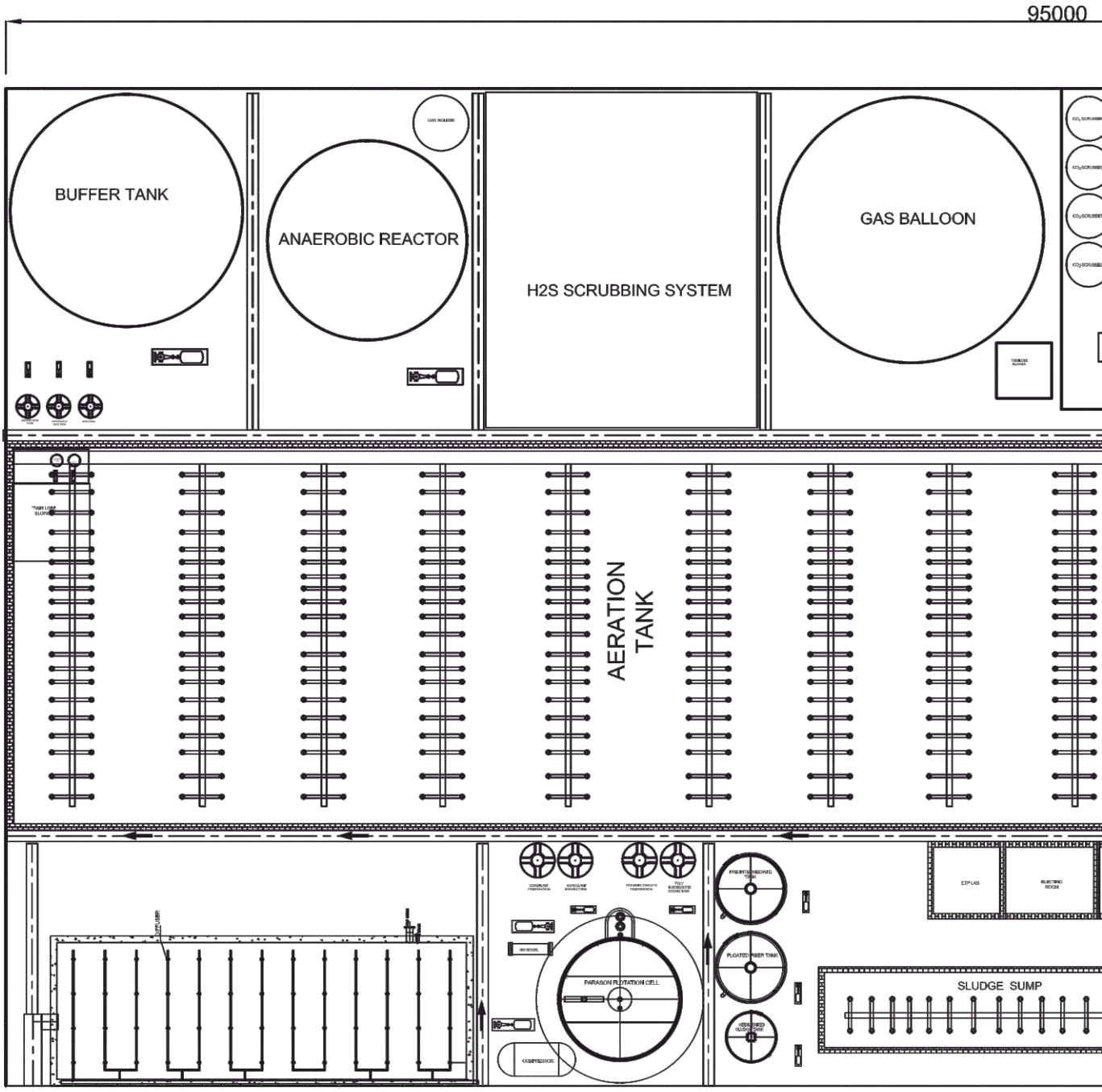
*Above model is designed for 200 PPM Inlet TSS.

INDUSTRIES WE SERVE

Our expertise extends across a wide range of industries, and we are committed to delivering tailored effluent treatment solutions that meet your specific requirements and regulatory standards.

WATER TREATMENT PLANT (WTP)

- → Drinking Water
- → Power Plants
- → Cooling Tower & Boiler Blow Down
- → Industrial Water Treatment Plants

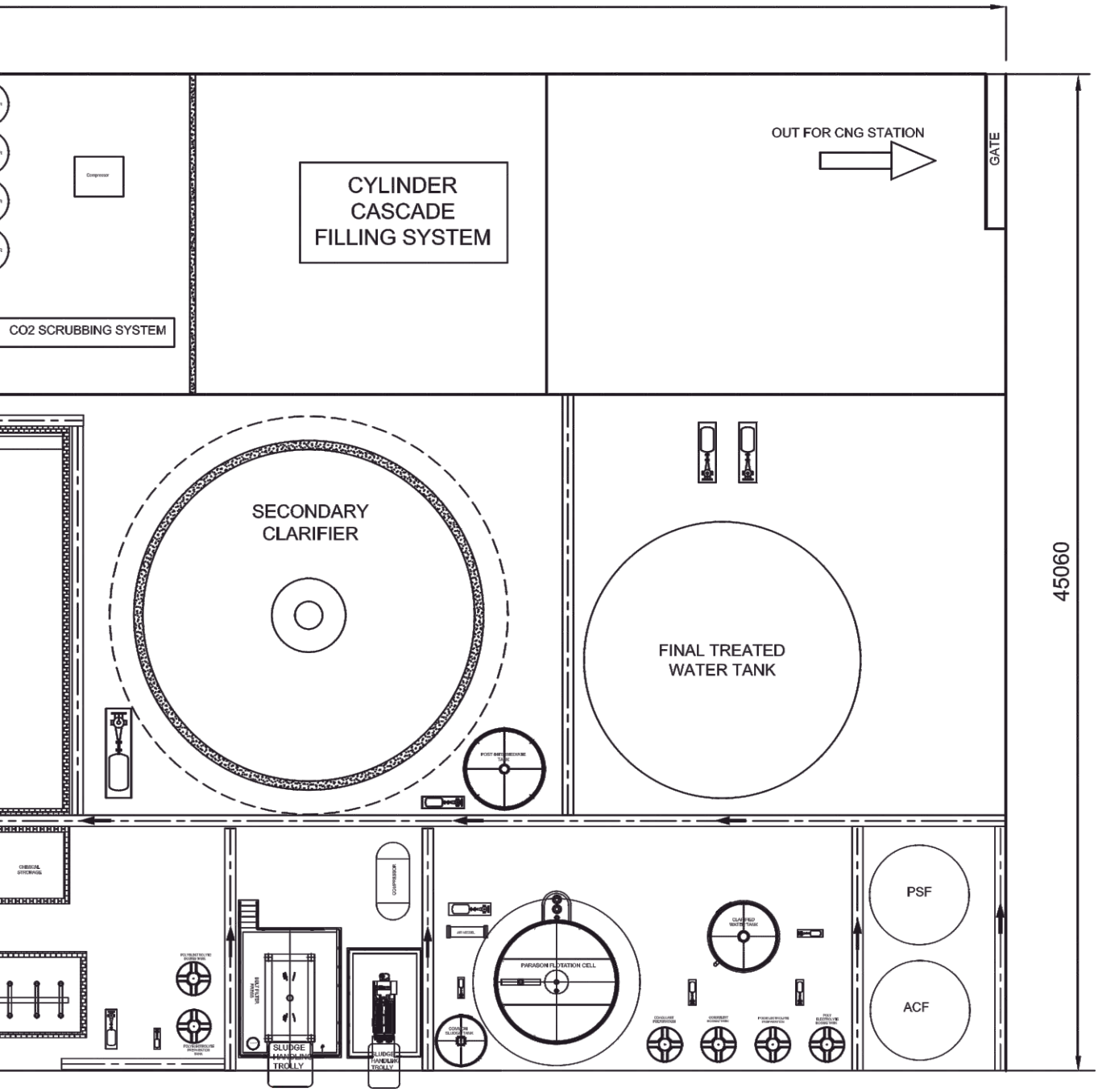


EFFLUENT TREATMENT PLANT (ETP)

- Dairies
- Breweries
- Sugar
- Pharmaceuticals
- Food Products
- leather
- Dying
- Vegetable Oil
- Paper And Pulp
- Petrochemicals
- Starch
- Textile

SEWAGE TREATMENT PLANT (STP)

- Municipal
- Corporations
- Hotels
- Hospitals
- Townships
- Manufacturing
- Industries
- Residential
- Societies
- Multiplexes
- Dying Industries
- Textiles Industries



ETP PROCESS FLOW DIAGRAM WITH CBG PLANT

Excess Water from Plant

Equalization Tank

Flash Mixer

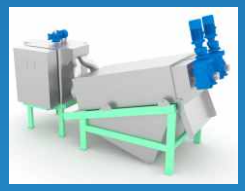
Primary Clarifier

OR

DAF

Conditioning / Buffer Tank

Common Sludge Tank



Eco Cell Bio-Reactor

Settling Tank

Aeration Tank

Secondary Clarifier

Flash Mixer

Tertiary Clarifier

OR

Post DAF

Treated Water Tank

To Paper Machine

To Plantation, Gardening

To Pulp Mill

To Irrigation

H2S Scrubber

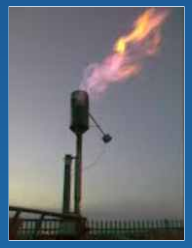
Membrane Gas Balloon

PSA CO2 Scrubber

Compressor

Cascade Cylinder Out for Filling Station

Bio Gas Holder



PROCESS FOR BIO CNG

ANAEROBIC DIGESTER

Our Anaerobic Digester is a cutting-edge solution for efficient and eco-friendly waste management. It harnesses the power of microorganisms to break down organic matter without the need for oxygen. The generation of biogas from this process makes a significant contribution to the overall ROI of the entire ETP system and results in odor-free water.

Advantages

- → Reduction in COD, BOD.
- → Reduction in conventional ETP operational expenditure.
- → Renewable Energy: Converted into electricity or Bio CNG
- → Reducing dependence on fossil fuels.
- → Waste Reduction.
- → Smell free.

CBG / BIO CNG

Bio Compressed Natural Gas (CNG) is an eco-friendly alternative to traditional fossil fuels, derived from the biogas produced during anaerobic digestion. However, raw biogas contains gases such as CH4, H2S, and CO2. To produce bio CNG, it is necessary to use a scrubber to remove H2S and CO2, resulting in high-purity methane gas, typically reaching above 90% purity.

Advantages

- → Renewable Energy Source
- → Energy Independence
- → Decreases reliance on imported fossil fuels.
- → Sustainable Waste Management
- → Vehicle Fuel: Suitable for use in compressed natural gas (CNG) vehicles.

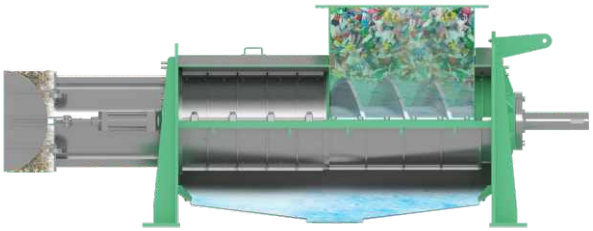
AERATION SYSTEM: AEROBIC TREATMENT

Our Aeration System is designed to optimize wastewater treatment processes. By infusing oxygen into wastewater, it facilitates the growth of beneficial aerobic microorganisms, leading to more effective and environmentally friendly treatment.

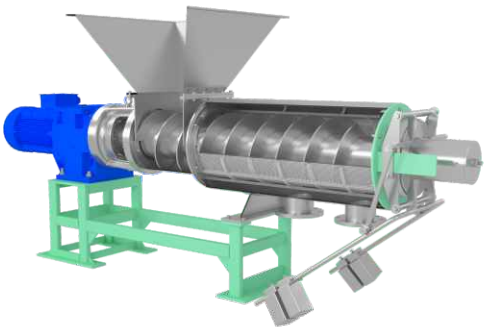
Advantages

- → Improved Water Quality and recovered water for reuse.
- → Reduction in COD, BOD
- → Improved Settling
- → Lower Chemical Usage
- → Consistent Treatment

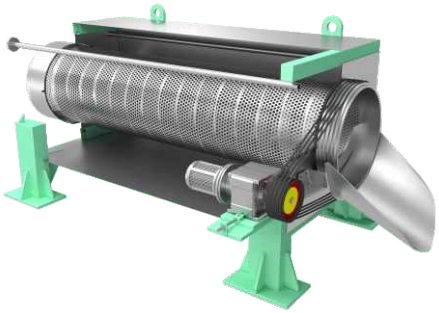
FOR SOLID WASTE MANAGEMENT



Reject Compactor



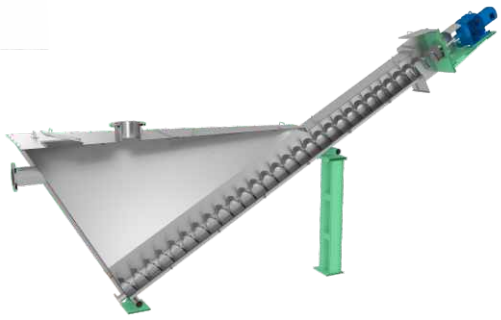
Fan Press



Trommel Screen

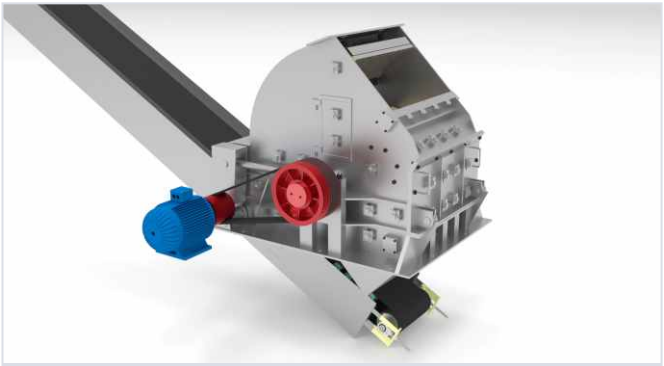
Inclined Trommel Screen

Hi-Density Cleaner



Sand Separator

Grapple

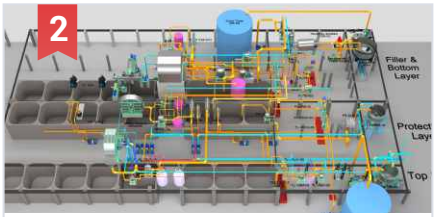


Hammer Mill

COMPLETE TURNKEY ENGINEERING SOLUTIONS

50 TPD TO 1000+ TPD CONCEPTION TO REALIZATION...!

Equipment sizing

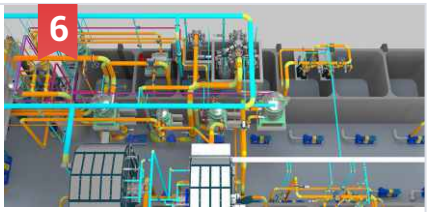


Layout drawing with optimum area

Pump sizing

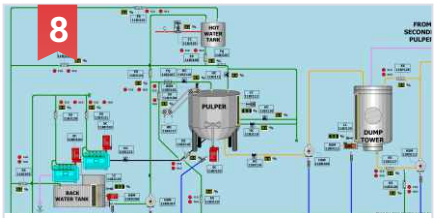
Power requirement evaluation

Mass balancing



Piping layout

Instrumentation design

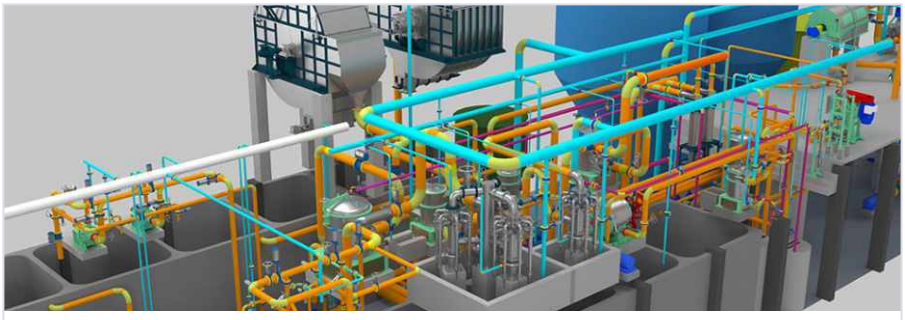


DCS Engineering

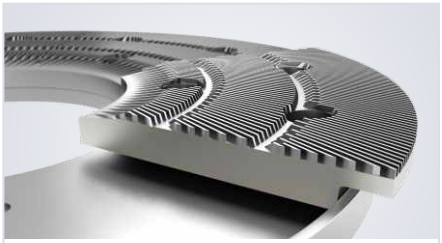
Control Philosophy of Plants

SERVICES & SOLUTIONS


Pulp Mill Audit


End To End Engineering Services


Screening Audit


Refining Audit


Paper Machine Audit

PARASON

Engineered Trust

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