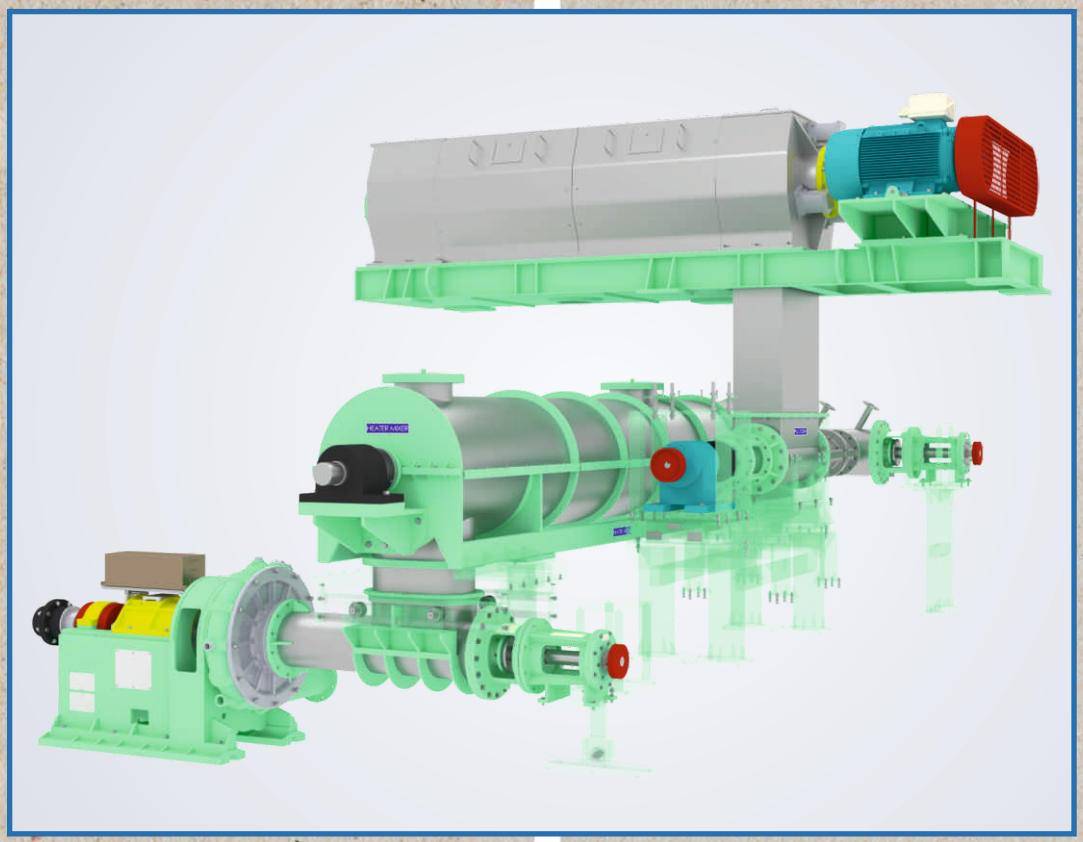
PARASON

Hot Pressurized Dispersion System

Efficient Dispersion of Recycled Fibers & Pulp Deinking Solutions

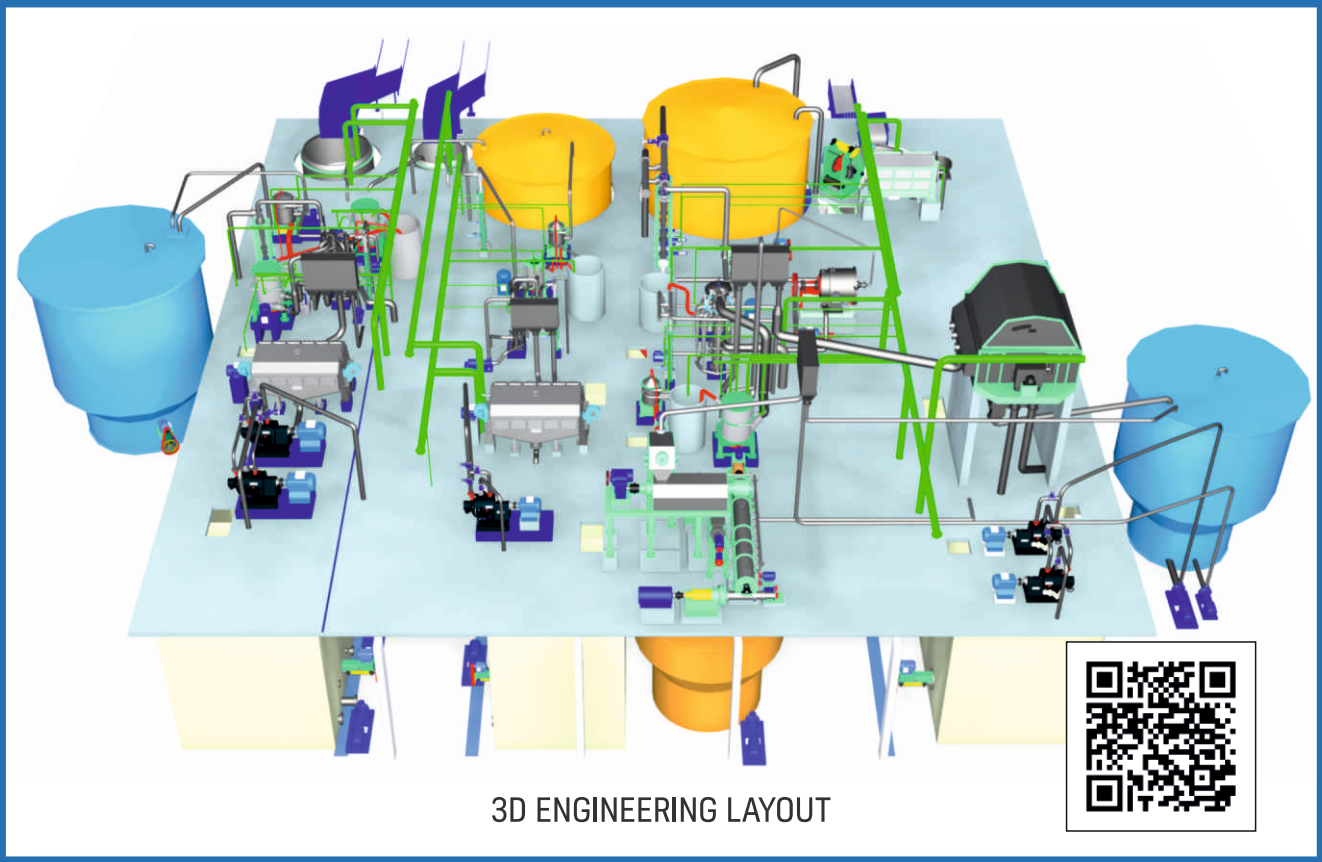


Hot Pressurized Dispersion System | Deinking Cell | Oxidative Bleach Tower

www.parason.com

Engineered Trust

PARASON HOT DISPERSER SYSTEM



3D ENGINEERING LAYOUT

INTRODUCTION

Parason Hot Disperser system is designed to disperse the specs & impurities (waxes, hot melts, stickies, bitumen, ink) contained in the waste paper pulp. The technology lies in the combining of the forces such as high consistency of pulp at 38% to 42%, raising the temperature to 80°C to 110°C and applying the mechanical energy by Ultra Precision Disperser segments in the accuracy of microns. At this stage, the combination of the various forces creates balance so that the aesthetic properties of the paper are improved dramatically.

ADVANTAGES OF DISPERSER

- Reduces specs in pulp
- Can use cheaper waste paper
- Improves fibre treatment
- Reduces stickies, hot melts, etc.
- Improves paper quality
- Reduces raw material cost
- Provides better strength property
- Increases paper machine runnability, reduces machine clothing costs

OVERALL INCREASE IN PROFITABILITY

OPERATION SYSTEM

The Parason Disperser system consists of the following combinations of the processes:

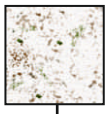
→ The stock consistency needs to be increased upto 38% - 42%

→ Breakage of the lumps in the pulp will increase the surface area

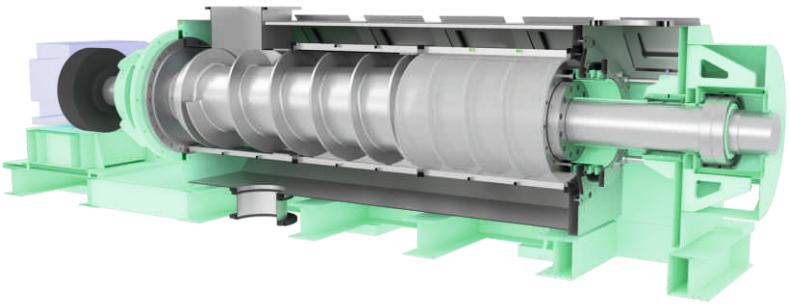
→ Increase the temperature of the pulp to 80°C - 110°C

→ Ultra-Precision dispersion with precise gap control

HOT DISPERSER WITH INCLINED SCREW



INLET
(4 - 5% Cons)

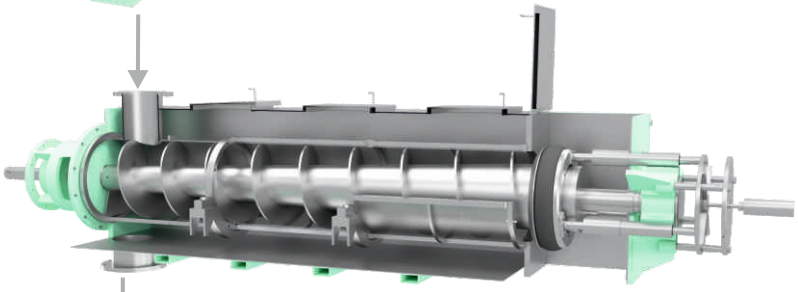


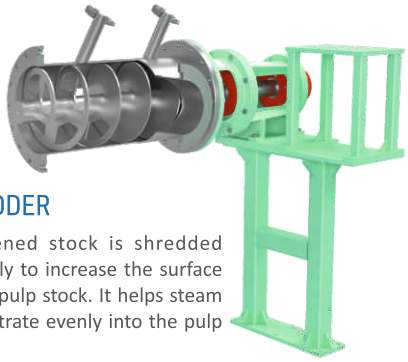
PARASON DEWATERING SCREW WITH PNEUMATIC LOADING SYSTEM

Parason Dewatering Screw has both the conical screw cone and pneumatically controlled counter pressure cone that which ensure desired dewatering effect upto 10% consistency with flexibility of operation

SCREW PRESS

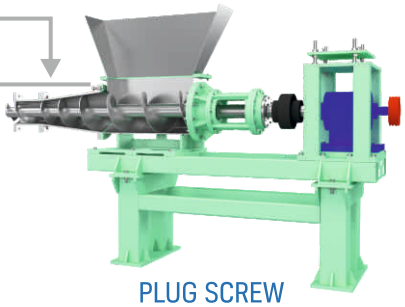
The Parason Screw Press is very sturdy and has unique features. The screw is made in single piece casting with hard facing edges of the flights. Pulp stock outlet consistency is upto 38% - 42% after Screw Press





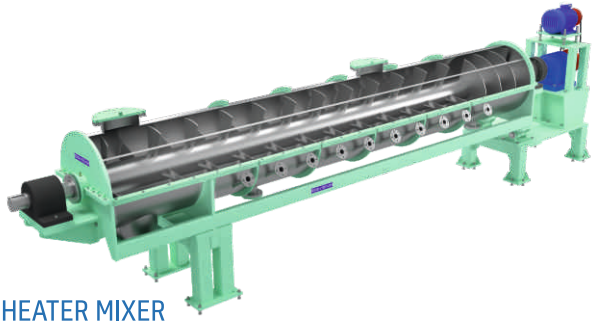
SHREDDER

Thinckened stock is shredded uniformly to increase the surface area of pulp stock. It helps steam to penetrate evenly into the pulp stock



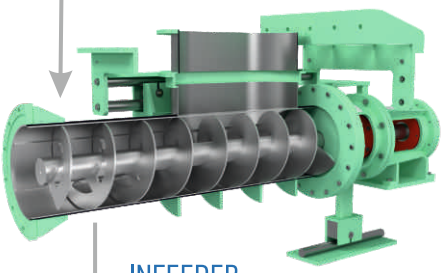
PLUG SCREW

Plug screw is designed to avoid escaping of steam, thus reducing the steam consumption and improving the dispersing effect. The screw consists of an inlet chute tapered compression zone



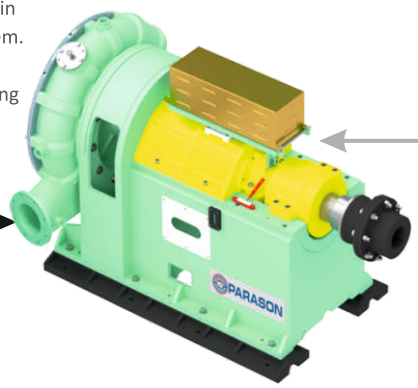
HEATER MIXER

Shredded stock is heated up to 90°C - 100°C in Heater Mixer with temperature control system. Steam nozzles are provided throughout the length of the Heater Mixer for uniform heating



INFEEDER

The Infeeder screw feeds the stock uniformly to the disperser



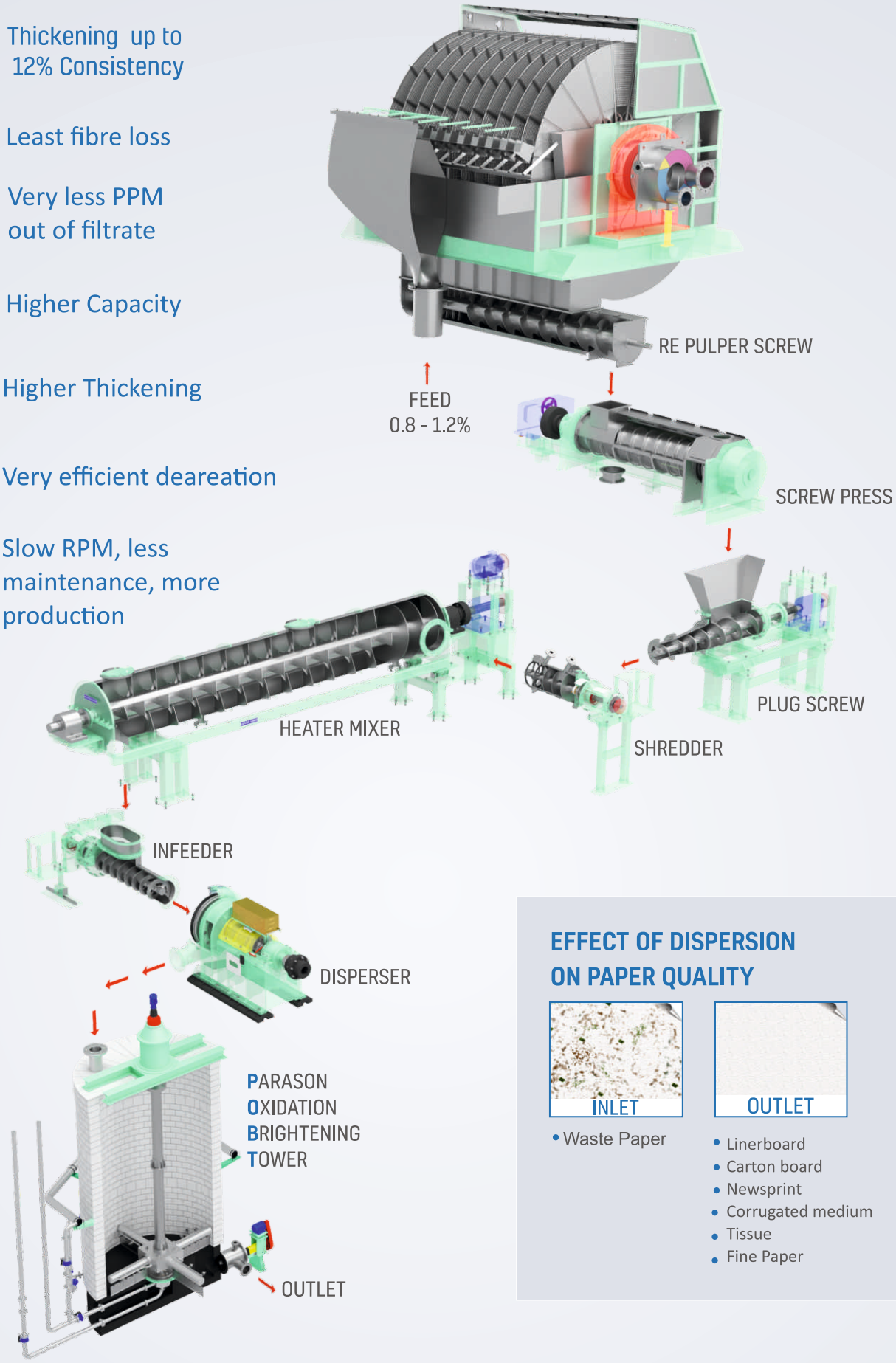
OUTLET
(4 - 10% Cons)

DISPERSER

Parason Hot Disperser is designed for dispersing of pulp stock at 30% consistency, at 100°C, and gap control upto 0.01 mm accuracy with electro hydraulic arrangement. it is Designed for gentle treatment of fibres at high consistency and temperature, ensuring optimum development of fibres and dispersion of contaminants in microns, hence improving aesthetic look of paper

DISC FILTER IN COMBINATION WITH HOT DISPERSION

- Thickening up to 12% Consistency
- Least fibre loss
- Very less PPM out of filtrate
- Higher Capacity
- Higher Thickening
- Very efficient deareation
- Slow RPM, less maintenance, more production



EFFECT OF DISPERSION ON PAPER QUALITY

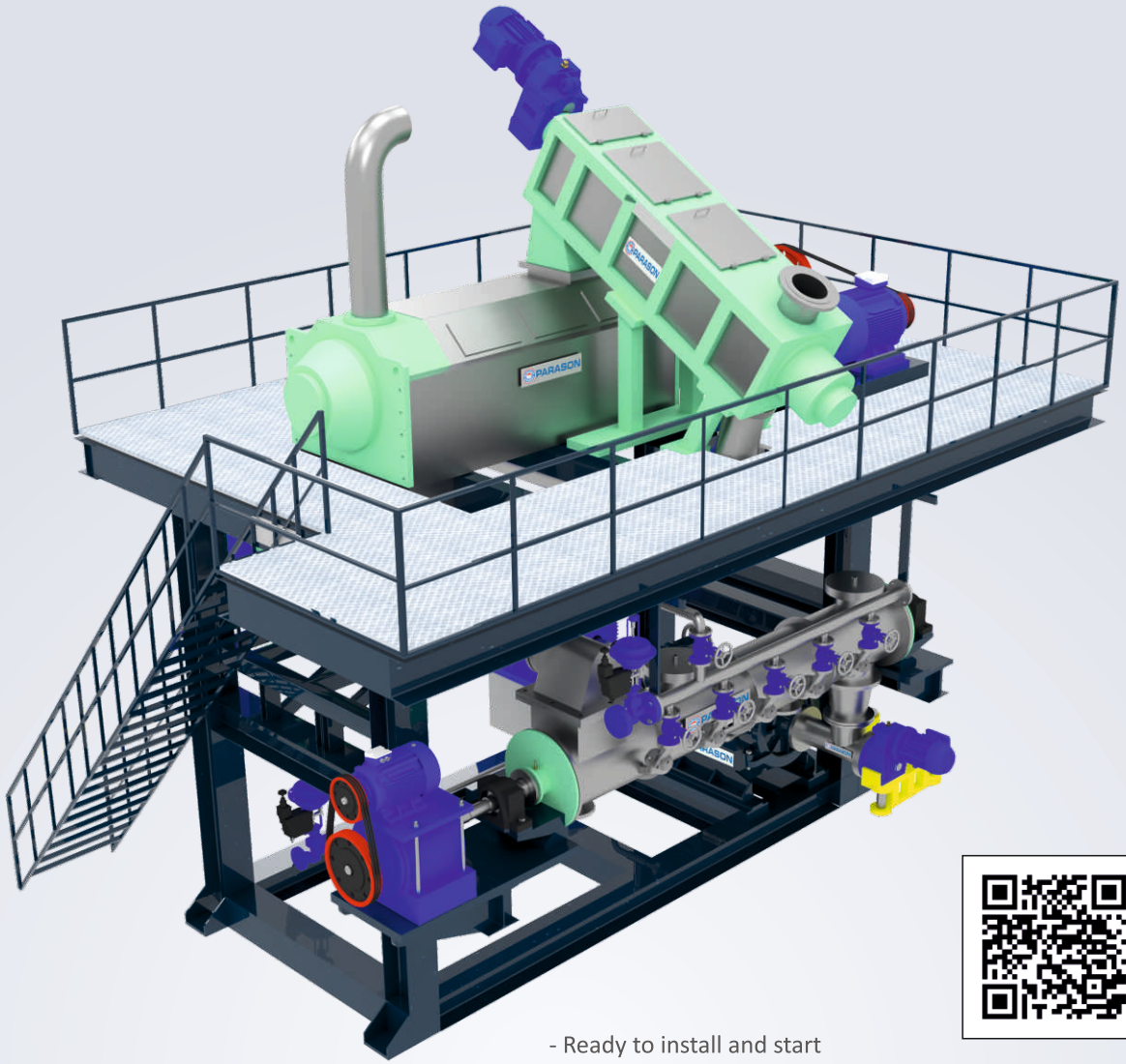
INLET

- Waste Paper

OUTLET

- Linerboard
- Carton board
- Newsprint
- Corrugated medium
- Tissue
- Fine Paper

PARASON MINI DISPERSER

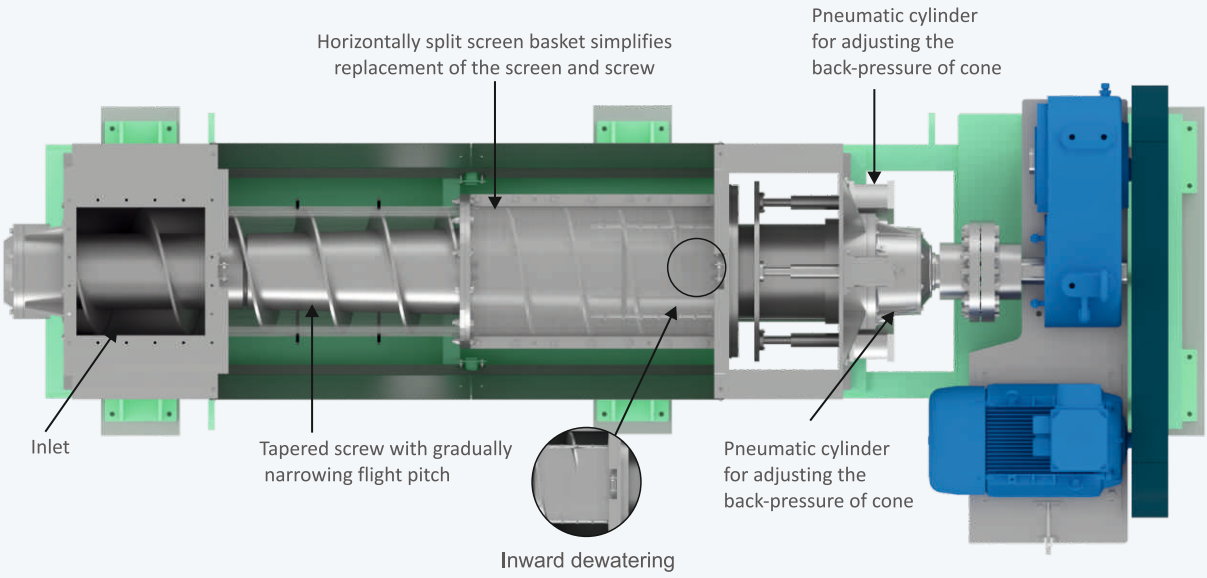


- Ready to install and start
- Minimum floor area
- Ideal for small capacity manufacturing speciality paper

PARASON PRESSURIZED HOT DISPERSER MODELS

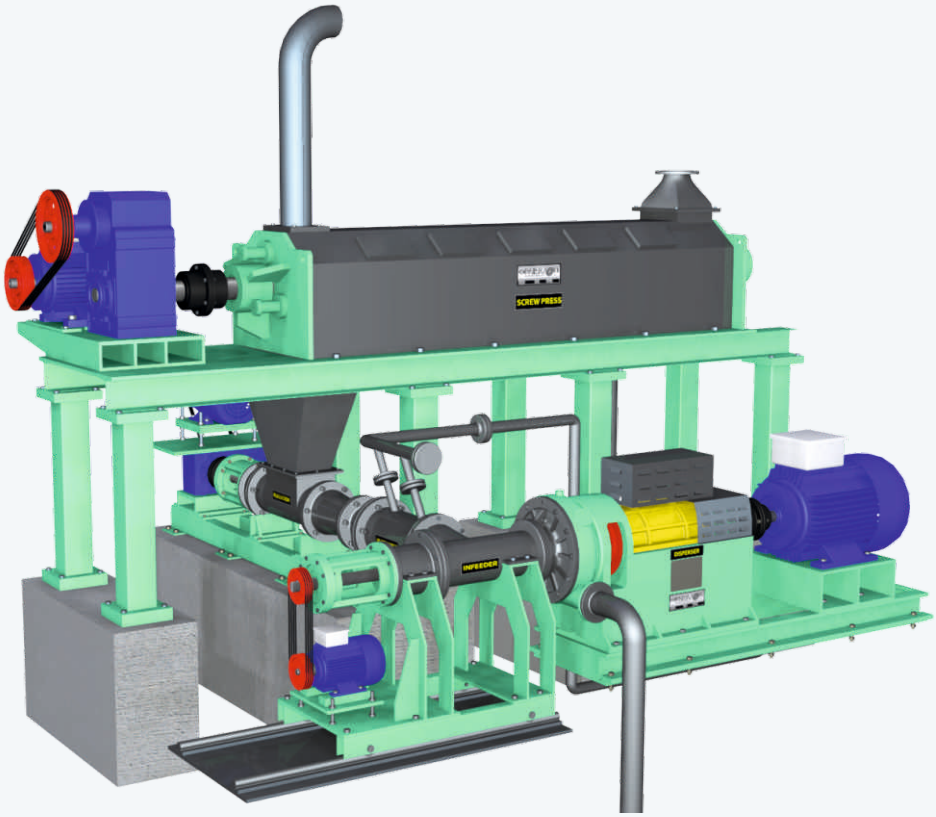
MODEL	CAPACITY (TPD)	CONSISTENCY INLET	CONSISTENCY OUTLET	Main Motor Rating (Kw)	Gap Control
Mini Disperser	20-30	4-6%	5-15%	90-150	Manual
DP-500	35-45	4-6%	5-15%	130-200	Auto
DP-600	50-90	4-6%	5-15%	180-300	Auto
DP-750	90-300	4-6%	5-15%	300-600	Auto

PARASON SCREW PRESS

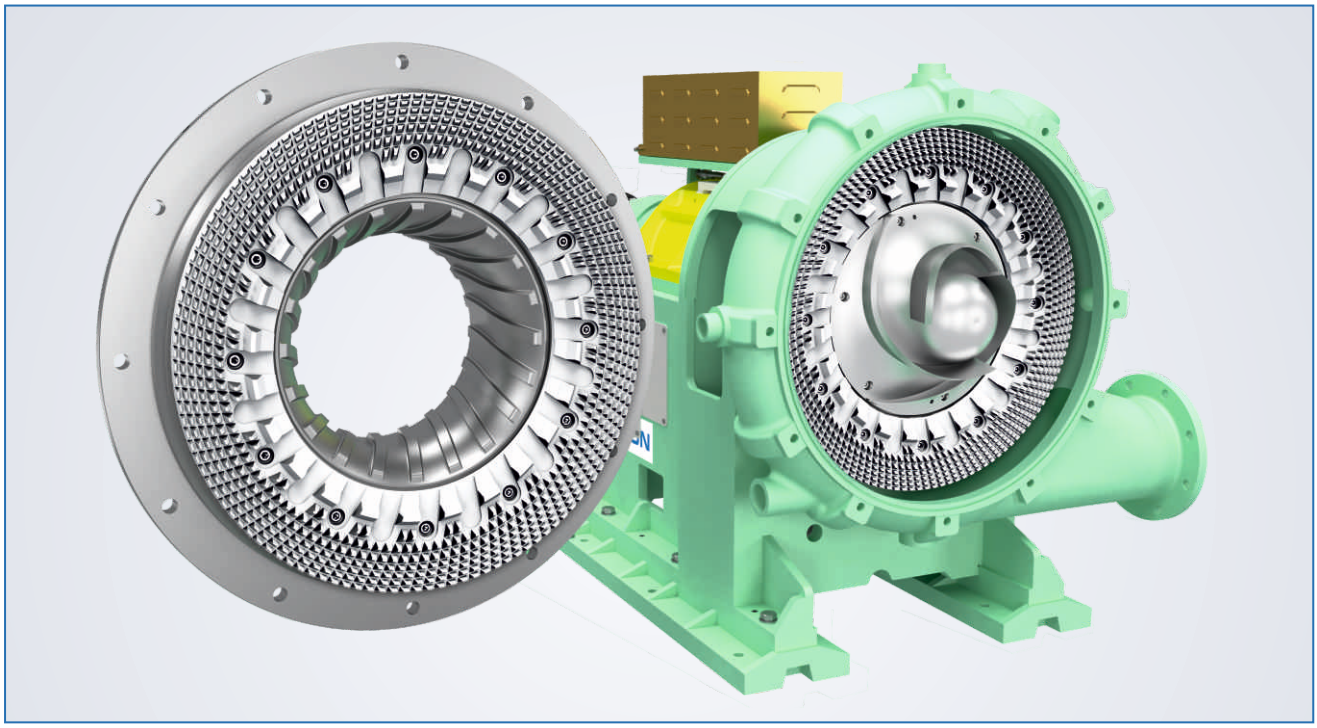


PARASON LONG SERIES COMPACT DISPERSER

- → Screw press type PLS for dewatering pulp from 4% to 30% consistency in single equipment
- → Plug screw, shredder & heater mixer combined in single unit
- → Compact design, occupies less floor area
- → Lesser number of drives reduces power requirement



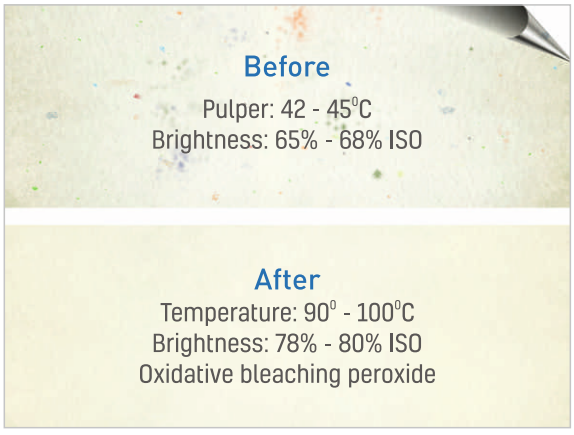
PARASON HIGH PRECISION DISPERSER DISC



→ Disperser disc in segments and full circle with modern metallurgy

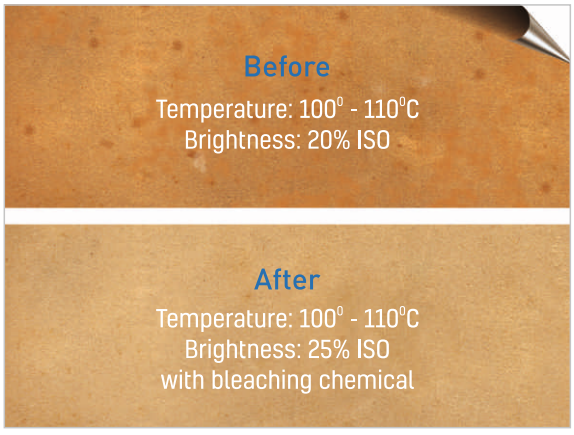
→ Discs are manufactured on CNC machine and dynamically balanced on Schenck, German machine

RESULTS OF PARASON DISPERSER



White Grade

DISC TYPE: Precise machined tooth disc



Kraft Grade

DISC TYPE: Application based design

HYDRAULIC UNITS & CONTROL PANEL

CONTROL SYSTEM CONTAINS

- Control desk panel
- Hydraulic power pack
- Lubrication and filtration unit
- Disc gap control system
- Servo/tracer valve
- Pneumatic loading of dewatering and screw press

DESIGN OF CONTROL SYSTEM

- For operation and monitoring of a complete dispersing system with operational safety interlocked from one centralized place
- Proper control on disperser disc gap while starting, stopping and running of disperser unit
- Controlling disperser bearing temperature by continuous lubrication, filtration, and cooling of lubrication

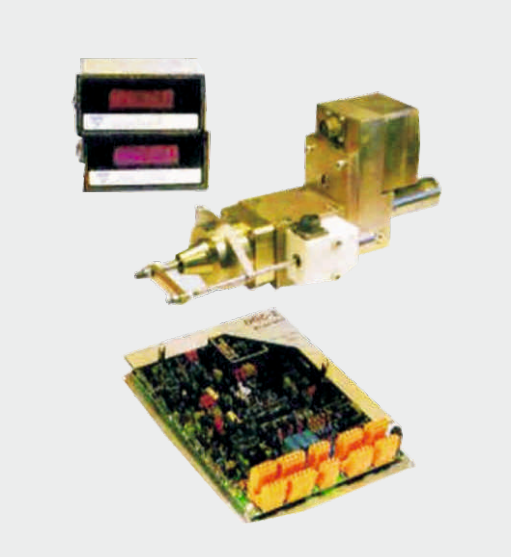
MAIN FUNCTIONS

- Manually or remote controlled
- Disc position measuring
- Display of disc gap & disc wear
- Limit setting
- High resolution
- Emergency opening
- Manually opening independently

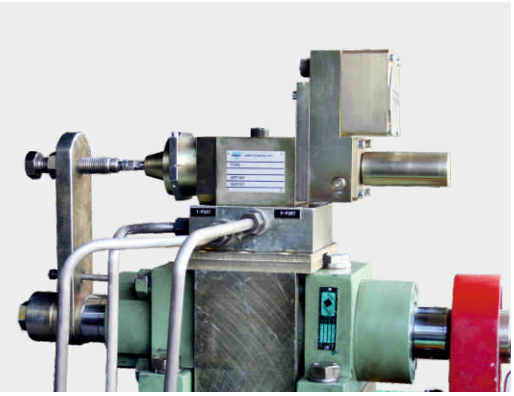
DESIGN OF CONTROL SYSTEM

- Disc movement by electro hydraulic servo/tracer valve
- Feedback of disc position by LVDT
- Disc loading limit is adjustable
- Quick response & disc for positioning to achieve the required gap from loading and unloading stage
- Precise control on forward & backward movement of disc by 0.01mm+/-
- Variable drive recommended for dewatering screw, screw press, and plug screw

DGC 2 Main Components



Accuracy 0.01mm Gap Setting Mechanism



Why a Disc Gap Controller ?

- High demand on accurate and repeatable distance between the disc for high dispersion effect and uniform pulp production
- Remote control
- High resolution
- Constant disc gap independent from temperature and feed variations

Eco Tech Papers

An ISO : 9001 : 2015 & FSC® - COC Certified Company
Office : 2nd Floor, Subham Velocity, Opp. Wellford, Honu Ram Boro Path, G.S. Road, Guwahati -781005 (Assam) Ph. No. : 0361-7191700
Email : ecotechpapers@gmail.com • accounts@ecotechpapers.com
sales@ecotechpapers.com • purchase@ecotechpapers.com

Date: 19/07/2021

Dear Mr. Shekhar,

We are pleased to inform you that, since last seven years the unit of the Parason Disc Filter and the Parason Dispersion system is working in our Eco Tech Papers.

These units have been working more or less maintenance free and smooth in the performance.

The Parason Disc filter and Dispersion system have improved the quality and the strength of the Paper using these systems.

We wish Parason a happy and prosperous future.

Thanking you.

Yours Sincerely,

Pradeep Jain

(Partner).

To,

Mr. Shekhar C Desarda, CMD,
Parason Machinery India Pvt. Ltd.
Golden Dreams IT Park, Plot No. E-27, 4th Floor,
MIDC Chikalthana, Aurangabad-431006,
Maharashtra, India

WORKS : Vill - Kamalpur & Dolma, Mouza : Pubpar, P.O. -Kamalpur, Dist.-Kamrup, Guwahati-781380 (Assam)
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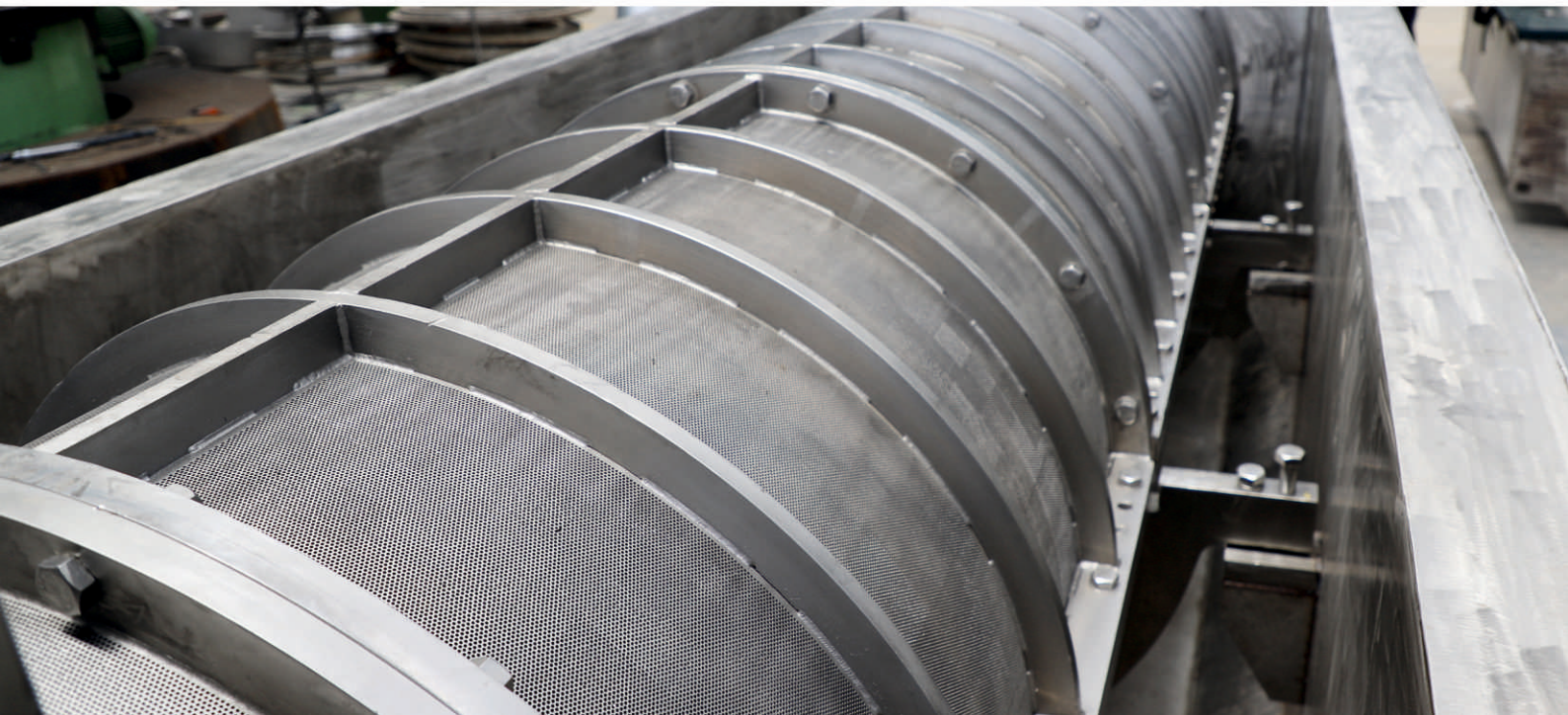
We Cannot spell success without you....!

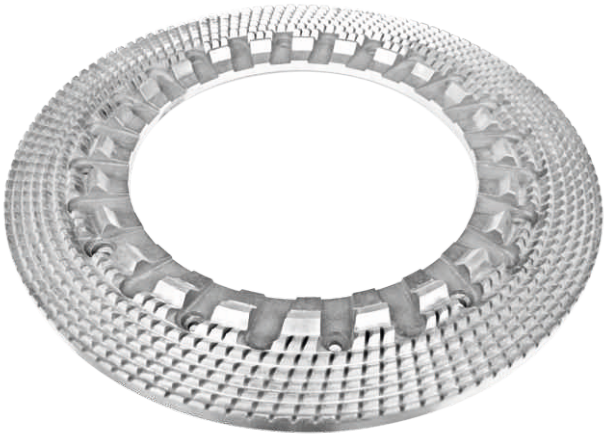
The appreciation letters received by our prestigious clients are the power boosters for our evergrowing services. Thankful to the **ECO TECH PAPERS** for sharing such valuable feedback.

PARASON SCREW PRESS-1000

Maximizes pulping efficiency and increases plant availability while reducing operating costs.



Disperser ring with high level of dimensional accuracy for uniform minimum running gap upto 0.1 mm

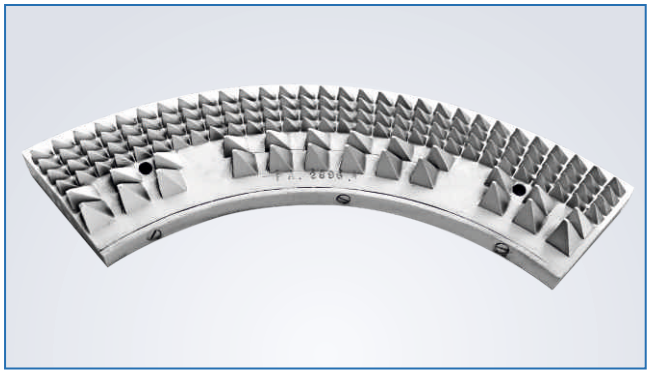


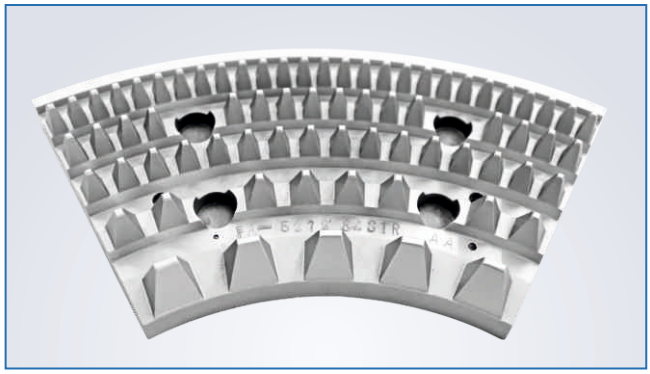
DISPERSER RINGS

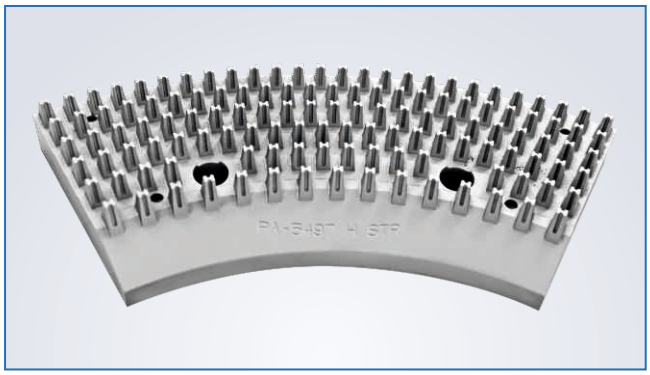
HIGH QUALITY DISPERSER DISC READY TO SHIP IN 2 HOURS!

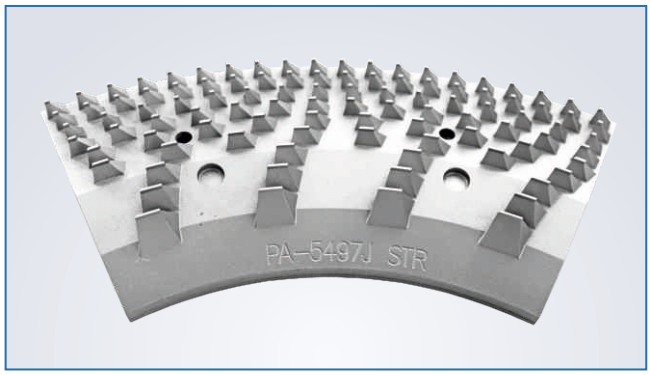
DISC FOR DISPERSER SYSTEM

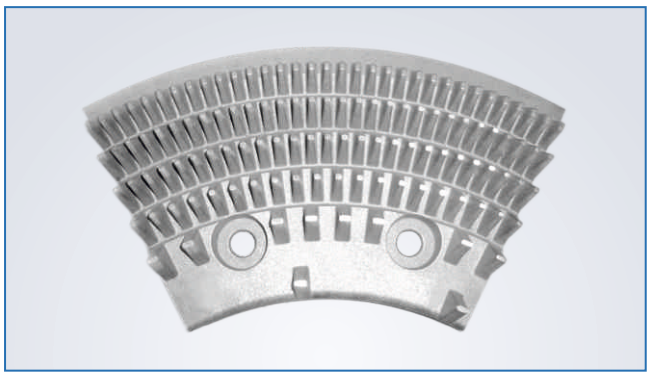
- → Disperser disc in segments and full circle with modern technology
- → Disc manufactured on CNC machine and dynamically balanced on Schenck, German machine
- → Manufacture in different sizes and designs as per requirements

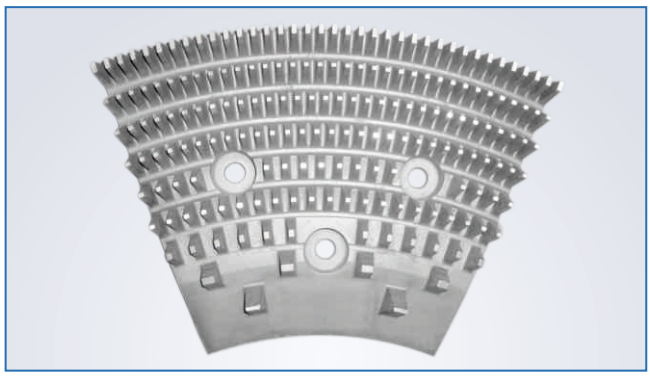


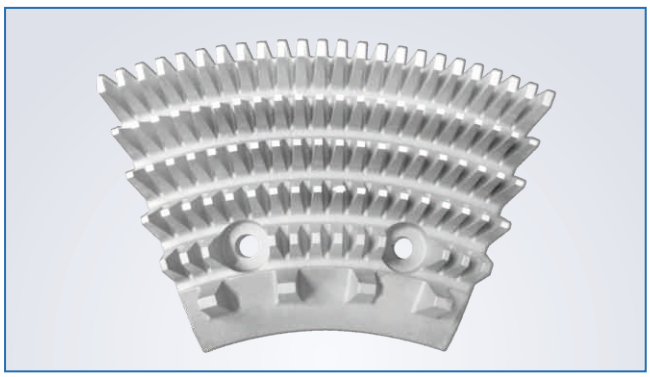


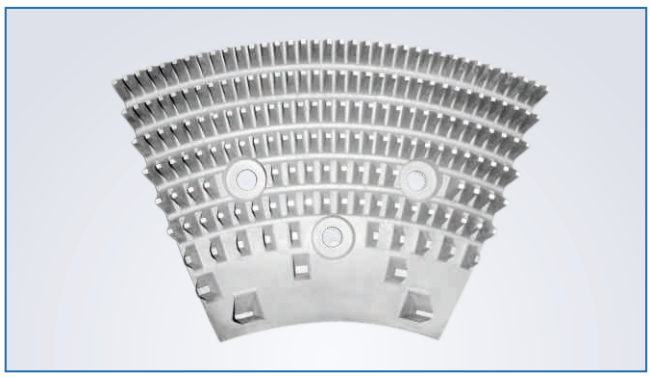




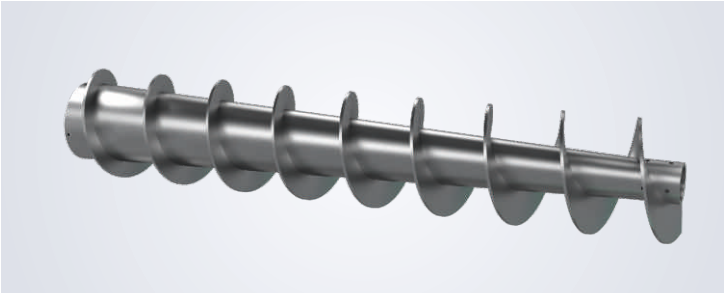


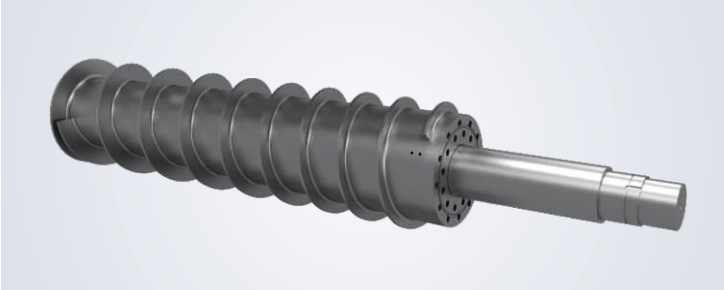


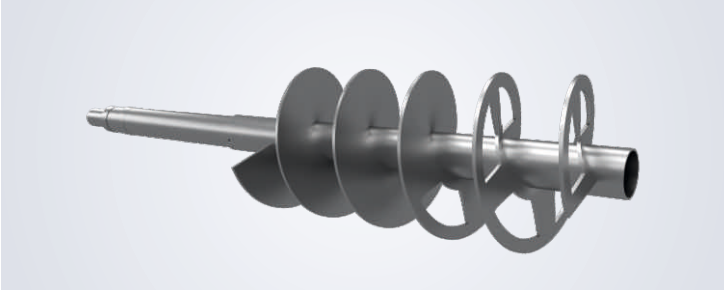


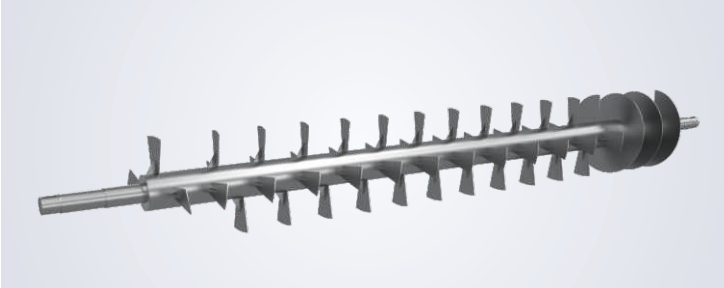


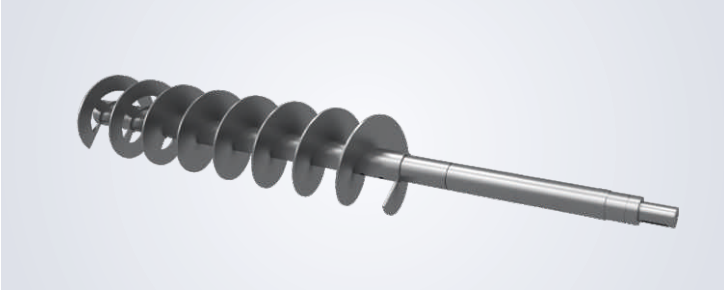
SCREW FOR DISPERSER SYSTEM











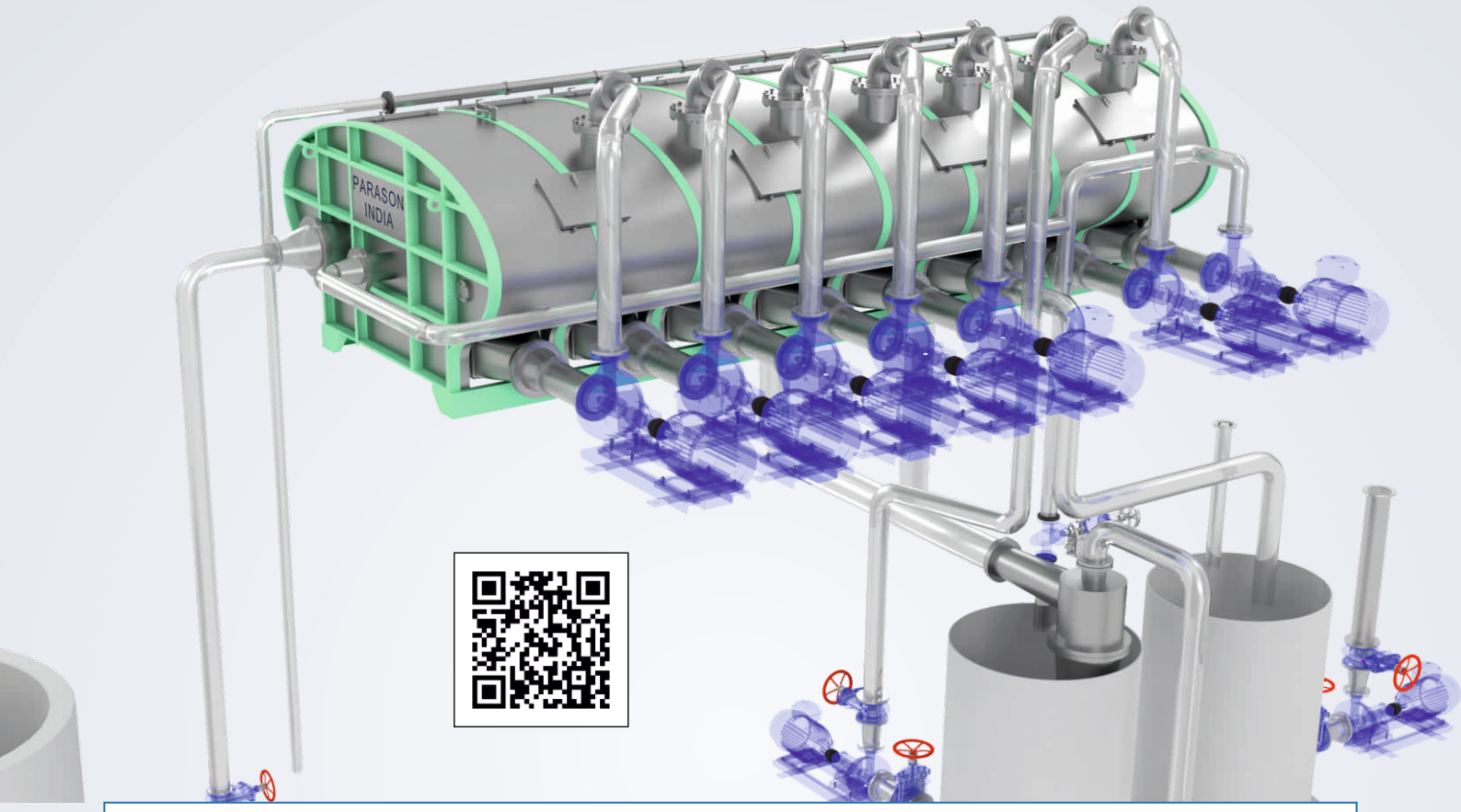
SCREWS FOR

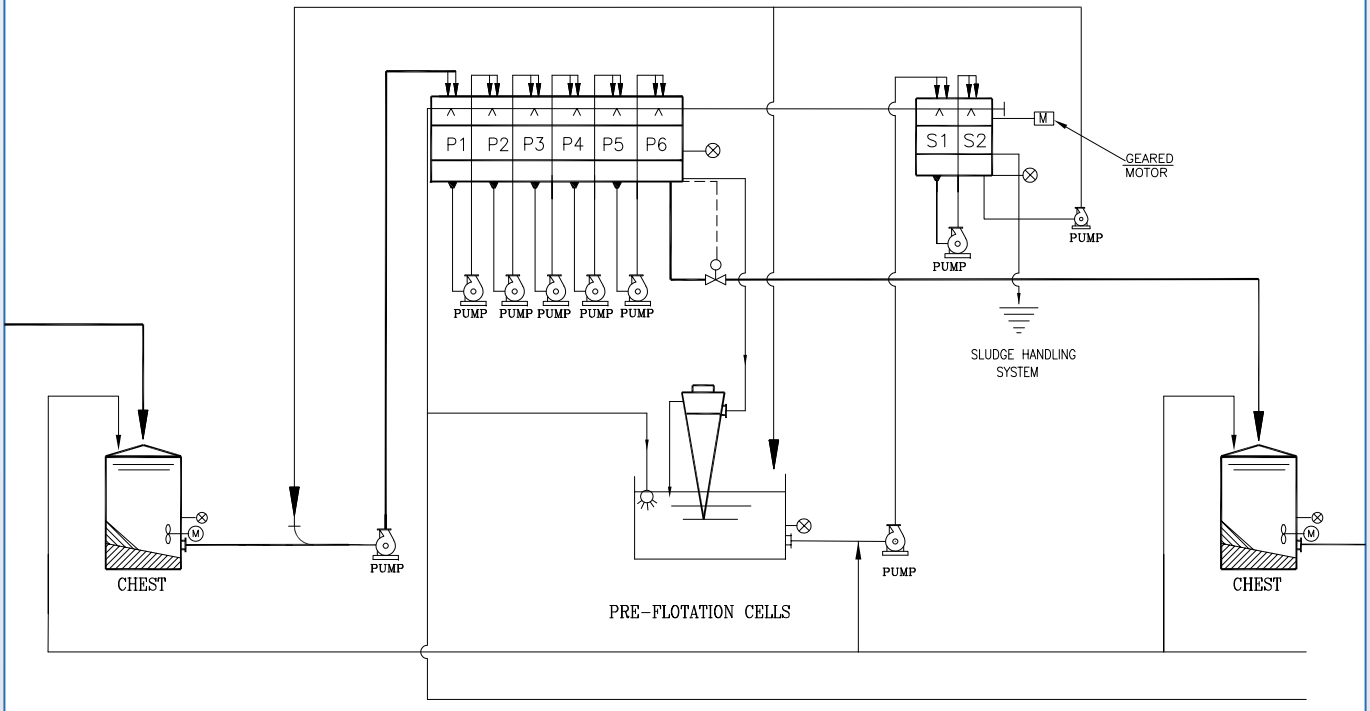
- DEWATERING SCREW
- SCREW PRESS
- PLUG SCREW
- SHREDDER
- HEATER MIXER
- INFEEDER

SCREWS

- → Made from high strength, tough and corrosion resistant stainless steel alloy
- → Screw Press in a single piece casting with hard faced edge for longer life and consistent performance
- → High precision dimensional accuracy for maintaining uniform minimum gap between screw and basket
- → Manufactured in different sizes as per customer requirements

PARASON DEINKING CELL



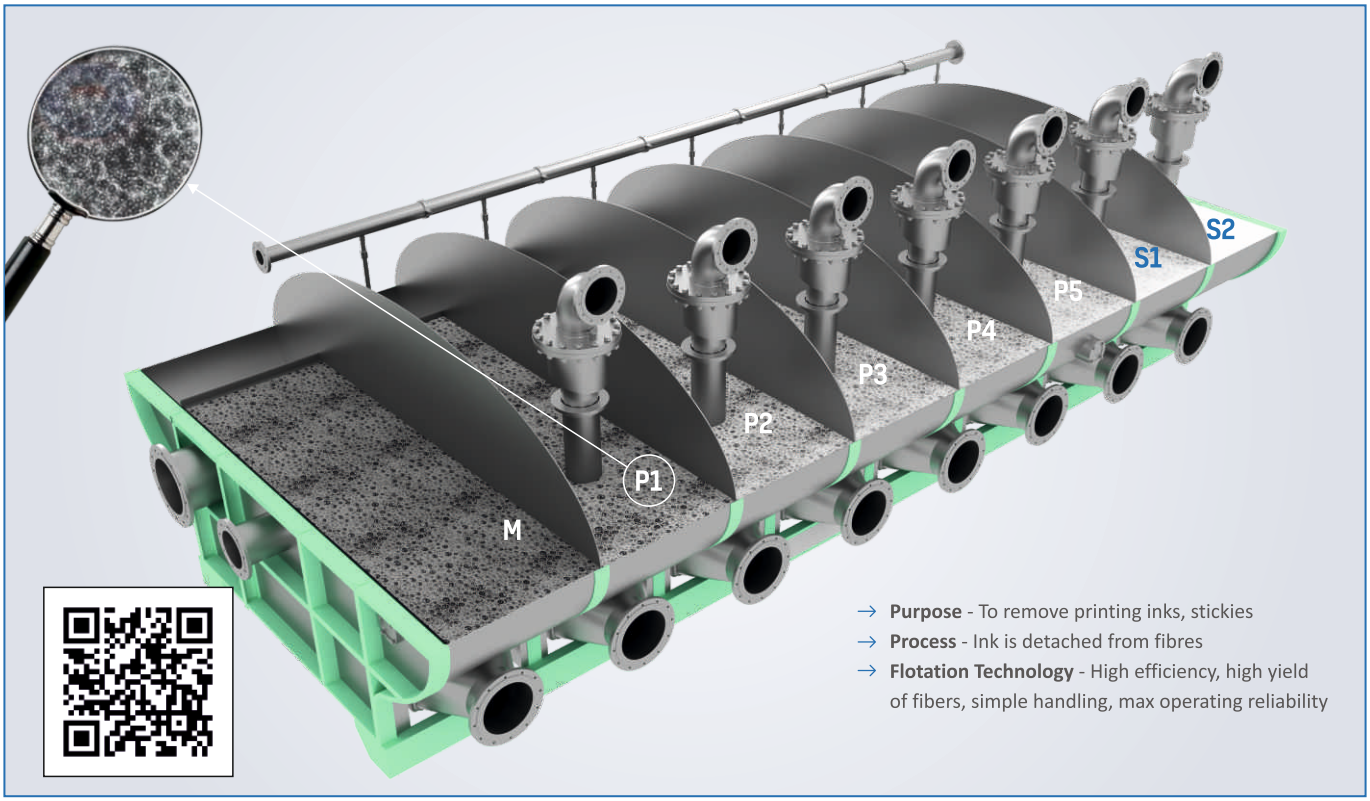


Deinking + Fiber Recovery Loop

WE OFFER HI-QUALITY CONSTRUCTION OF MACHINERY AND COMPREHENSIVE SYSTEMS ENGINEERING, WE SOLVE EACH RECYCLING TASK QUITE INDIVIDUALLY.

Throughput depends on pulp grade, consistency & specified technological properties. Hydraulically attainable maximum throughput are substantially higher. Upon request, data will be indicated after our engineers have studied your requirements.

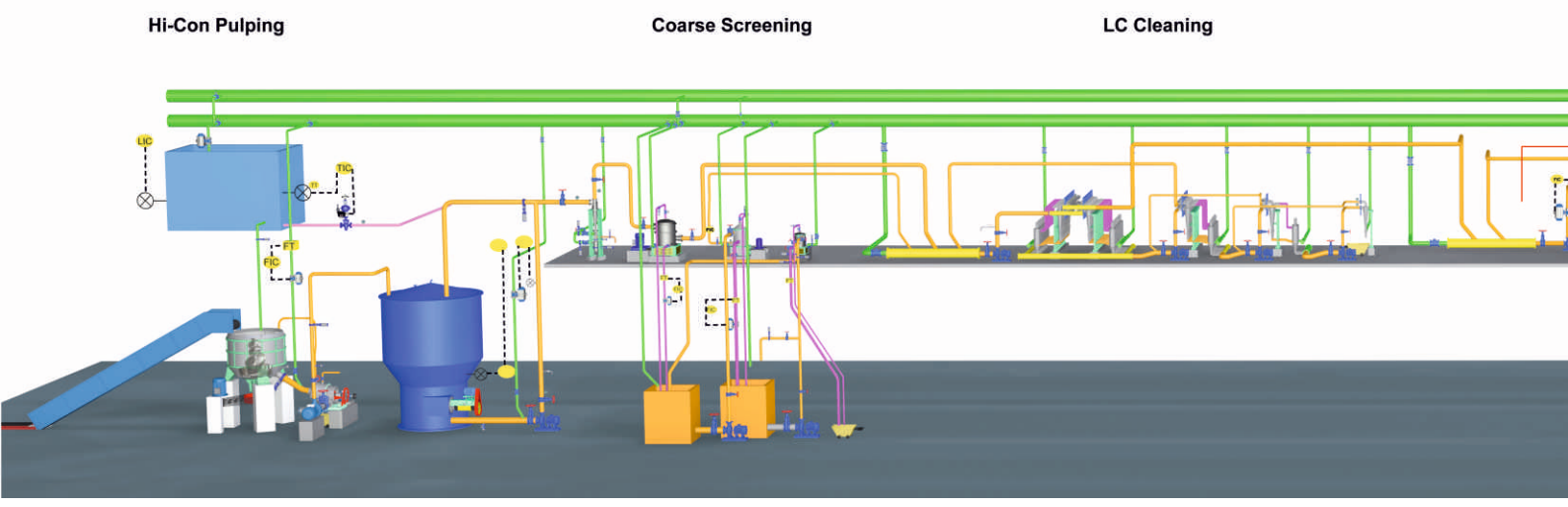
PRINCIPLE OF OPERATION



The Parason Deinking cell consists of a number of cells in series with an elliptical cross-section with a baffle extending over the entire length to separated suspension chamber. Air (at the atmosphere pressure) and pulp stock to be de-inked is introduced into the cell chamber through specially designed injector nozzle. Flow-through nozzles generate a negative pressure that sucks in the necessary process and generates microturbulence resulting in widely ranging bubble sizes enabling efficient removal of an equally wide range of particle sizes.

This enhances brightness to a high degree and reduces dirt, specks, and stickies efficiently. The injectors optimize the quantity of the air injected and the size of the bubbles generated.

The pulp stock free from ink is pumped from the bottom of one cell to the next cell. The ink laden foam overflows to the foam chamber with the help of a motorized paddle.

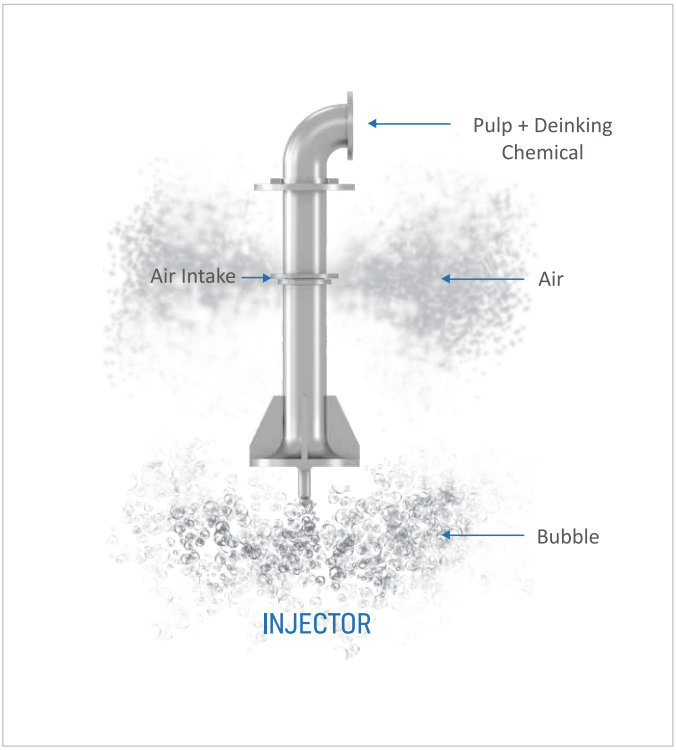


DEINKING SYSTEMS

System Experience and Process Know-How

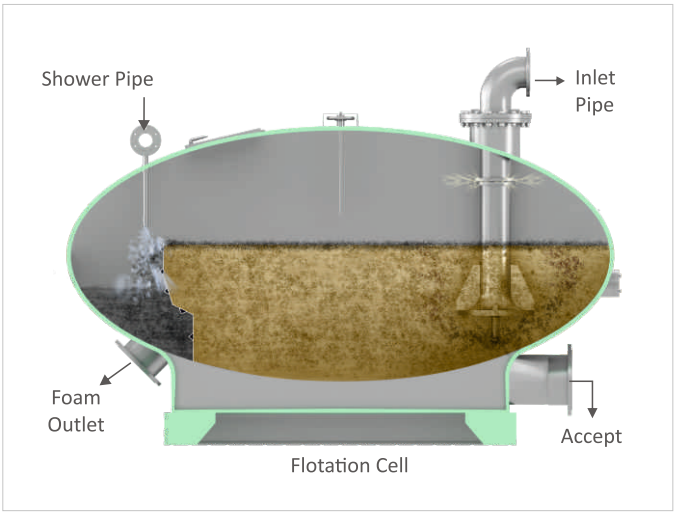
Flotation process is operated in a continuous mode and helps to remove ink particles efficiently. Since the cells are interconnected by opening only, a level control system is required for the entire flotation machine.

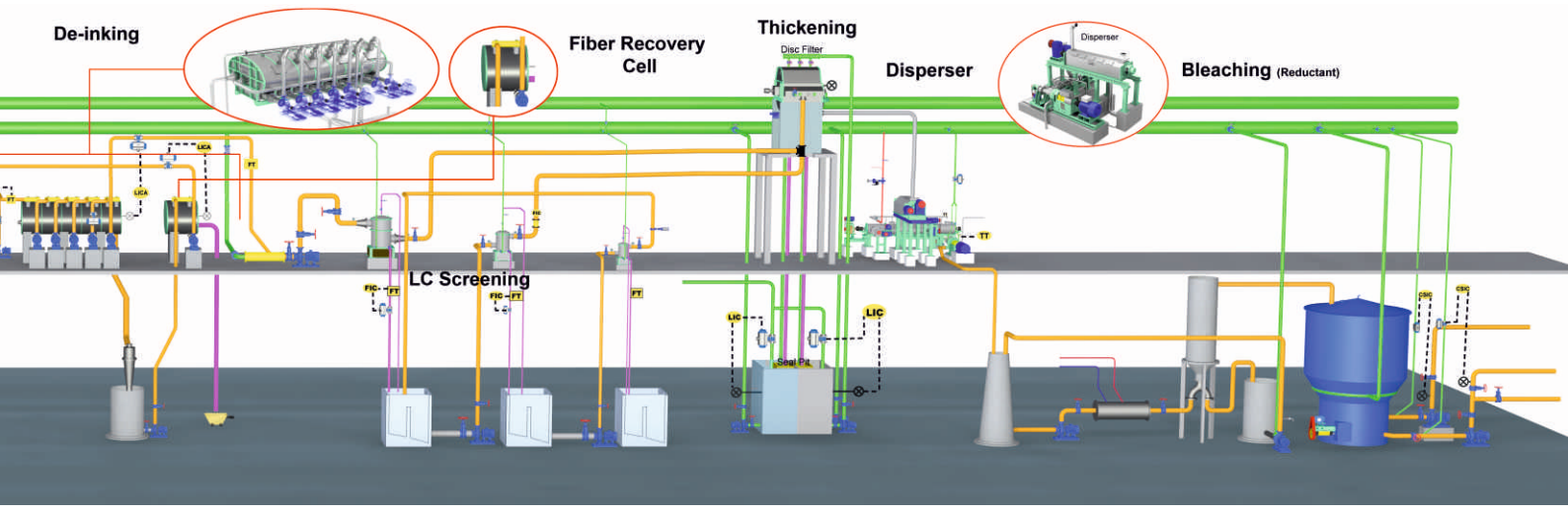
The primary flotation stage ensures the highest possible stock purity and the secondary stage optimized flotation ensures the fibre recovery to maximize the yield without any loss of brightness and cleanliness. A Deaerator cyclone removes air from the stock and usable fibre is recovered from the foam.



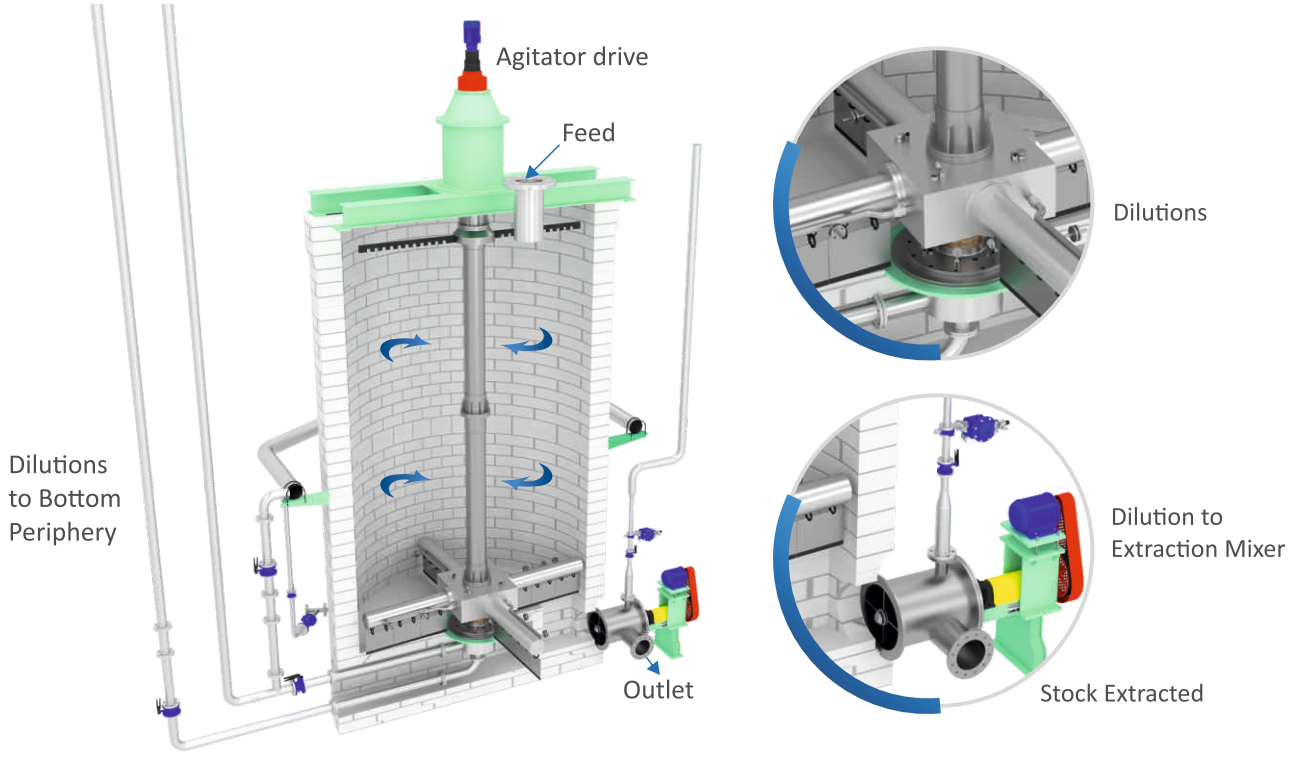
Unique Features of the Parason Deinking Cell

- Highest possible degree of brightness is achieved. Improved optical cleanliness in recovered paper stock
- No sizing restrictions. Single level control loop operation
- Optimized flotation maximize the yield at secondary stage without any loss of brightness and cleanliness
- Very low fibre loss in the de-inking process as the foam is treated in a cascade process
- High percentage of ash in reject resulting in low fibre losses





PARASON OXIDATIVE BLEACH TOWER



The unique factor of POBT is to hold up high consistency stock for adequate retention time, which will provide sufficient time for bleaching. At the bottom of POBT the stock will be extracted at 4 – 4.5% consistency with advance engineering of four different dilution systems.

Application

- → Storage, bleaching and soaking up high consistency pulp up to 28%
- → Very low specific energy required as compared to high consistency tower
- → Possibility of reduced height in order to be installed below the operating floor
- → Adequate retention time for proper homogeneous reaction with chemicals
- → Parason Oxidative Bleach Tower reduces the bleaching chemical consumption
- → Parason Oxidative Bleach Tower turbine assembly drive rotates with very minimum RPM 0.2 to 0.3 RPM respective with Variable Frequency Drive

Principle Operation

- → Tower is fed with pulp upto 24-30% from upstream Disperser Equipment
- → The pulp bleaching proceeds at high consistency with adequate retention time
- → In continuous operation, the stock pumped at 4-4.5% CY to 2nd loop or next stage of process
- → The POBT provides homogeneous reaction with oxidative bleach chemical for better pulp penetration to the pulp

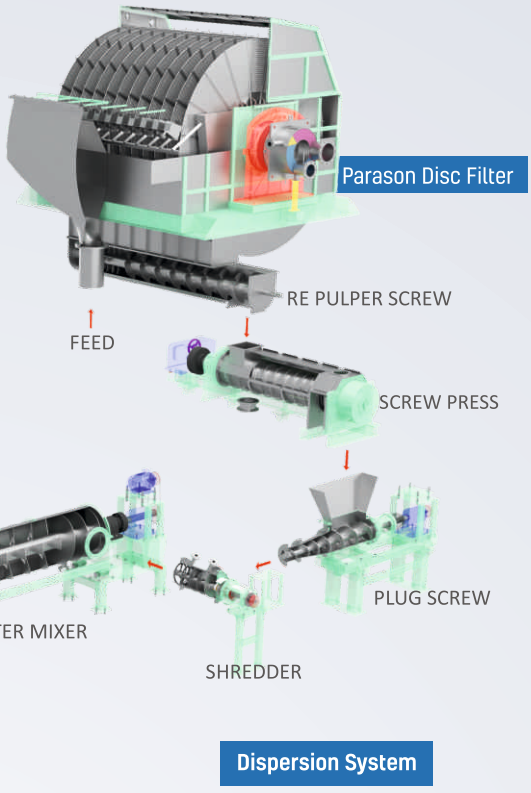
Used in Following Grades

Writing and Printing Grade | News Print | Wherever bleach chemical is used for bleaching White Grades

POBT IN COMBINATION WITH HOT DISPERSER

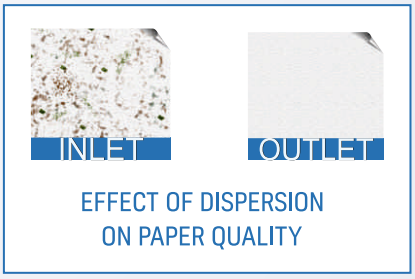
Brief construction of POBT

- Turbine Assembly with specially designed blades located at the dilution zone and one long vertical shaft with bearings and mounting arrangement
- Extractor at the bottom of the tower in extraction mixer zone
- Special geared motor for the turbine assembly with proper torque control rating
- Specifically designed geared motor for the extractor
- Support structure & bottom turbine assembly drive with integrated gear-drive
- POBT consists of 4 different dilution zones at the bottom



PARASON OXIDATION BLEACH TOWER

The tower can be made either in **SS Fabrication** or **Civil Construction** as per best suitability



PARASON

Engineered Trust

Corporate office: Golden Dreams IT Park, 4th Floor,
E-27, Chikalthana MIDC, Beside Millennium Park,
Aurangabad (MH), India - - 431006

Tel. : +91 (0) 240 - 6644 444
Customer Service No: +91 96734 49922

Email: info@parason.com
Web: www.parason.com

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Note: Content subject to change without any prior notice | Power consumed may vary as per furnish combinations