



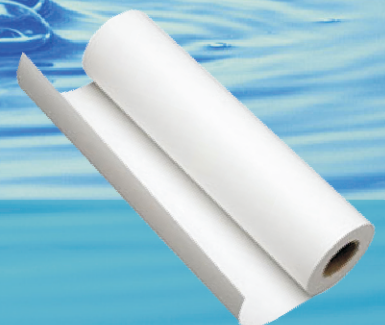
HI-TECH ENGINEERS

ISO 9001:2000 Certified Company



Decide with Confidence

A Solution Driven Company



Performance You Can Trust....



Growth of Success



HI-TECH ENGINEERS

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Get to Know Us

HI-TECH ENGINEERS'S performance oriented journey began in the year 1995 as the brain child of Shri P.D. Patel, who has a wide technical experience in the field of Pulp and Paper Machinery.

Today HI-TECH ENGINEERS is running successfully with co-union of the experienced old persona Mr. P.D. Patel and young professionals Mr. Alkesh Patel, Mr. Dipak patel and Mr. Ketan Patel. HI-TECH Engineers is a high technology driven company based in Ahmedabad, a global reckoned entity involved in the field of Manufacturing, supplying and exporting Pulp & Paper Mill Plant & Cement Plant Machinery.

Quality

For more than 15 years HI-TECH ENGINEERS is a leading Pulp and Paper Mill Machinery supplier. HI-TECH ENGINEERS commit to build only the highest quality machinery; we have earned the reputation of being the longest lasting and most trouble free machinery provider. We have also earned the reputation for offering new and innovative solution for pulp and paper applications.



Quality Policy

HI-TECH ENGINEERS is certified with ISO9001:2000 international quality certificate system.

A complete supervisory system has been setup to guarantee the quality of the final products. We keep innovating in technology and manufacture to make perfect our products in performance. Total Quality means-meeting the requirements, producing error free work, managing by prevention and measuring by cost of Quality.

Vision

Our aim is to be the leading Pulp and Paper Company in WORLD.



Customer Services

Customer is always in priority. And no matter what solution you need for particular project, you can be sure that HI-TECH ENGINEERS has the resources, the experience, the skill and the technology to match your need. To ensure customers' satisfaction, our technician and engineers will attend to every detail for installation, commission to operation.

Pre-sales services

- Inquiry and quotation preparation.
- Technical consultation.

In Sales Service

- Equipment manufacture.
- Onsite service engineer for installation and commissioning.

After sales service

- Setup individual customer's archives with all their needs and details to be attended.
- After sales technical consultation.
- Prompt spare part support.

Philosophy

- Think Innovative.
- Never stop learning.
- Be transparent.
- Do quality focused work.



COMPANY INFRASTRUCTURE & FACILITY

■ Corporate Office



■ Morden Workshop

■ Heavy Press Machine

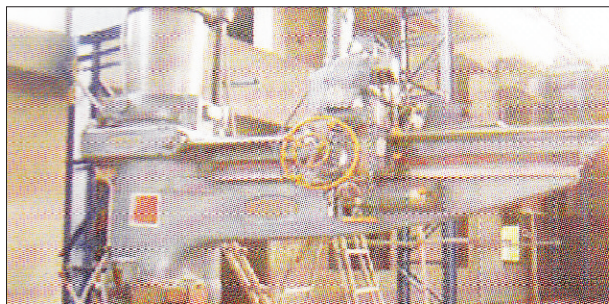


■ Heavy Bending Machine



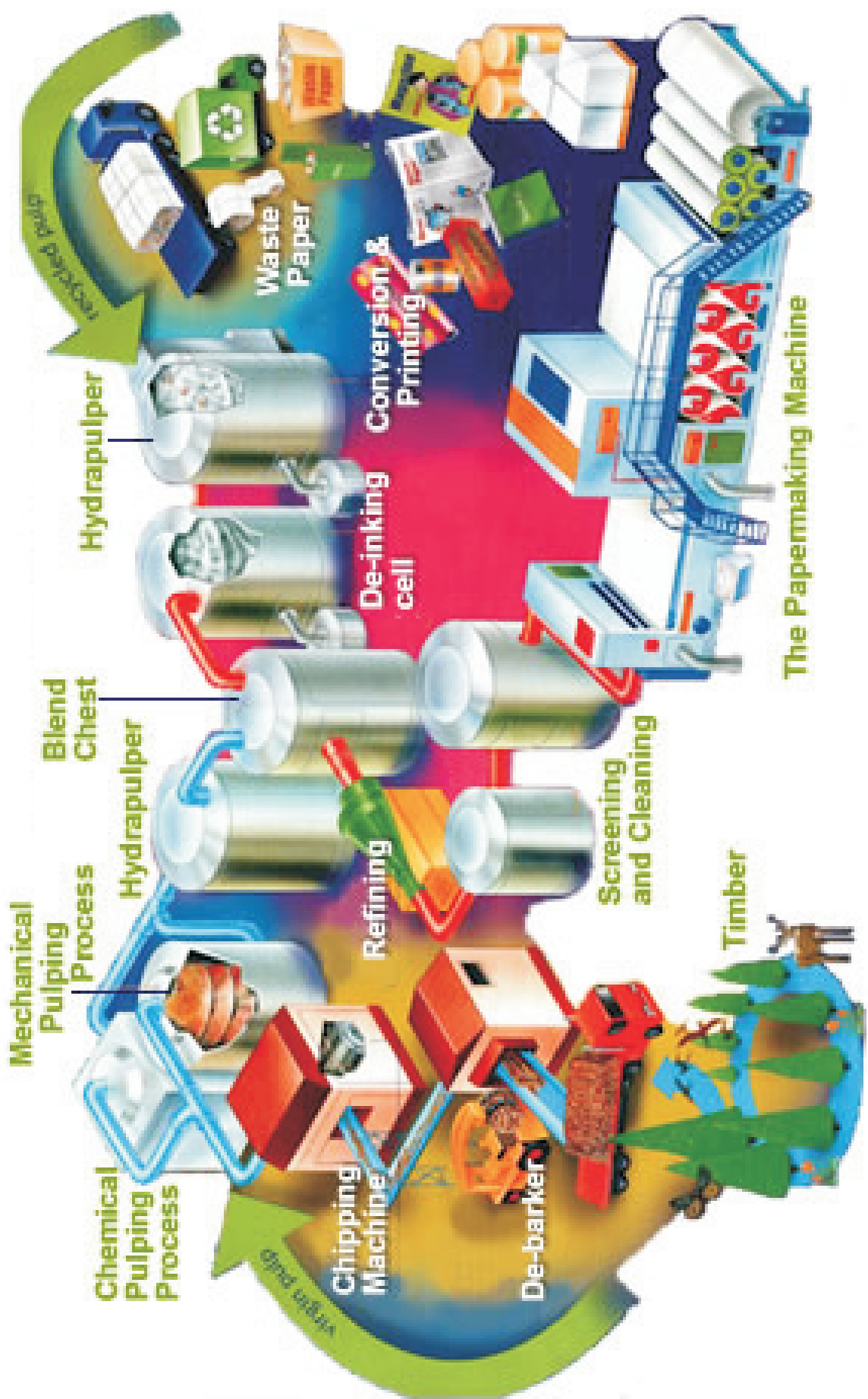
up to 5 meter Deckle Size

■ Heavy Drill Machine



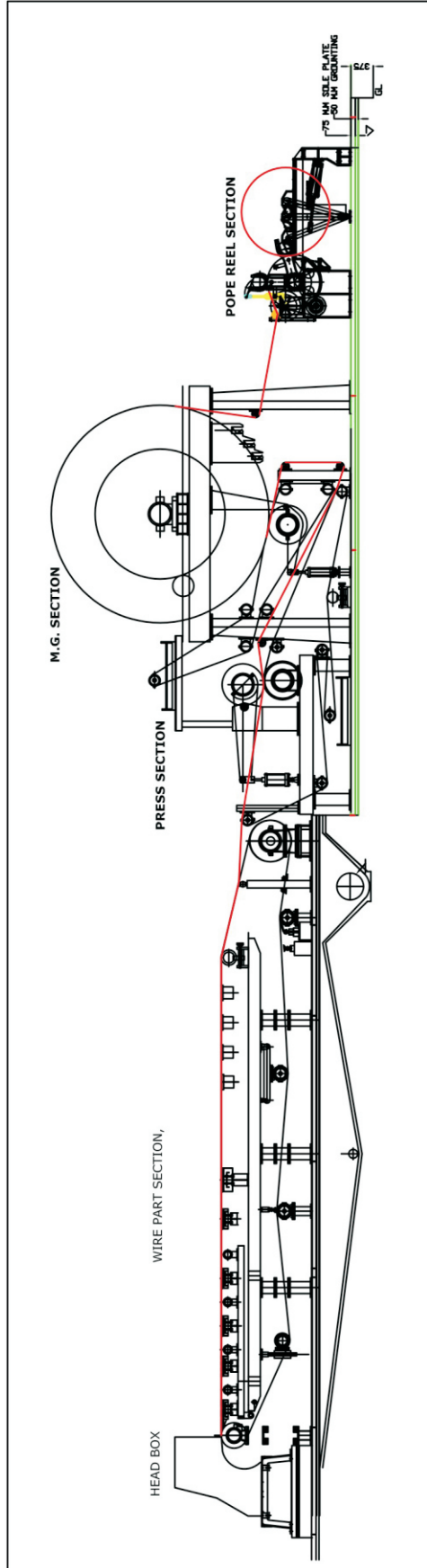
- Assembly Section
- Lathe Machine Section
- Quality Check Section

We check total quality from raw material to final products



The Papermaking Machine

YANKEE MACHINE

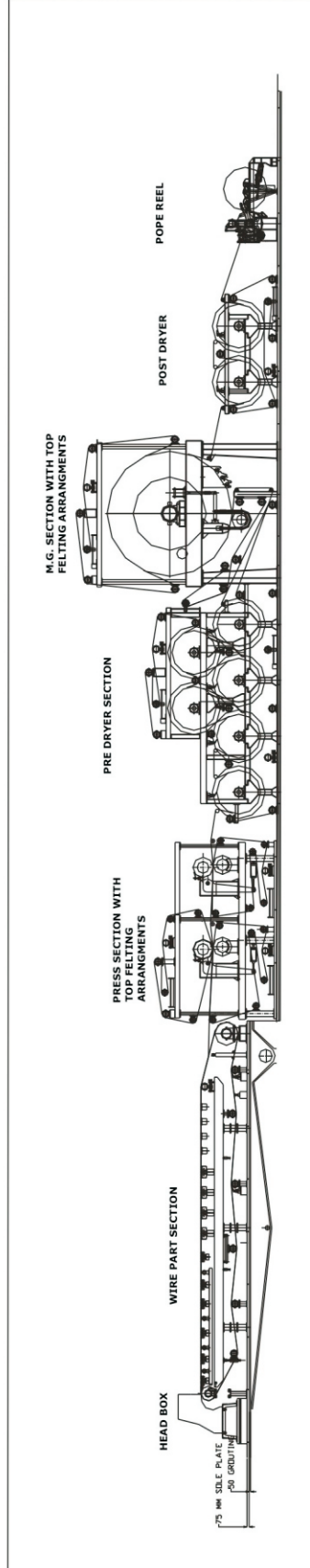


G.S.M Range : 25 to 120 g/m²
Product Type : M.G Poster Paper, Low gsm craft Paper,
Cigarette Paper etc.





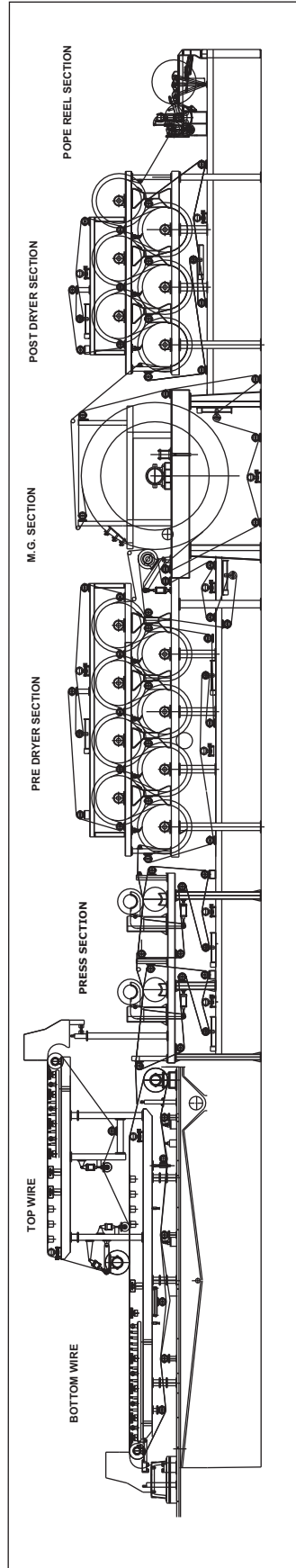
FOURDRINER WIRE PART MACHINE



G.S.M Range : 80 to 180 g/m²
Product Type : Absorbent Carft Paper, Craft Media Paper,
News Print Paper etc.



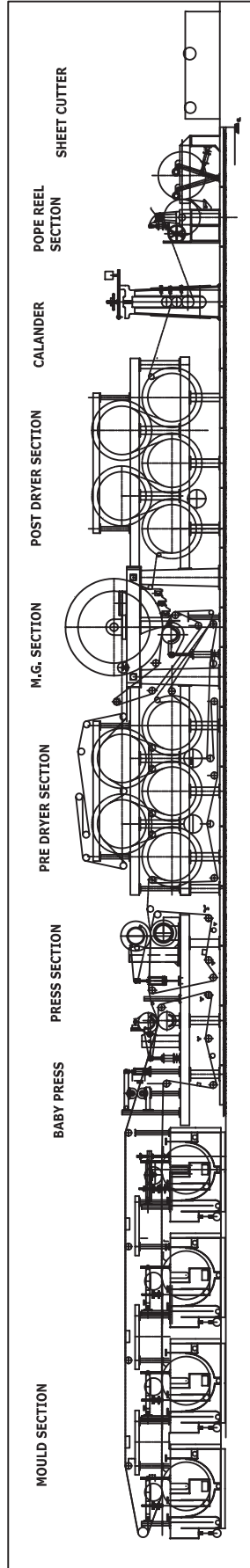
TWIN WIRE MACHINE



G.S.M Range : 120 to 250 g/m²
Product Type : Multi Layer Craft Paper,
High B.F, High G.S.M Craft Paper etc.



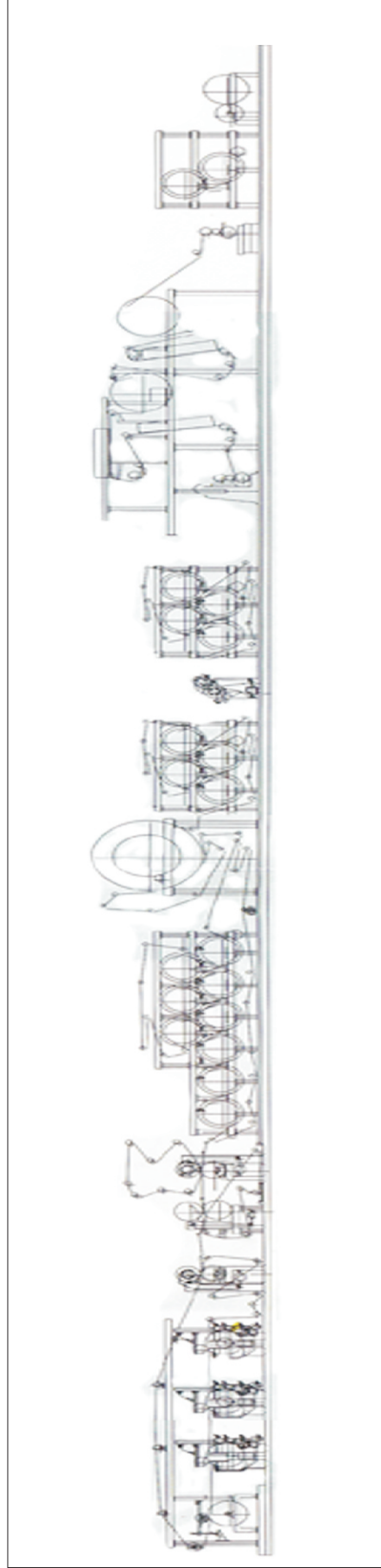
Mould Machine



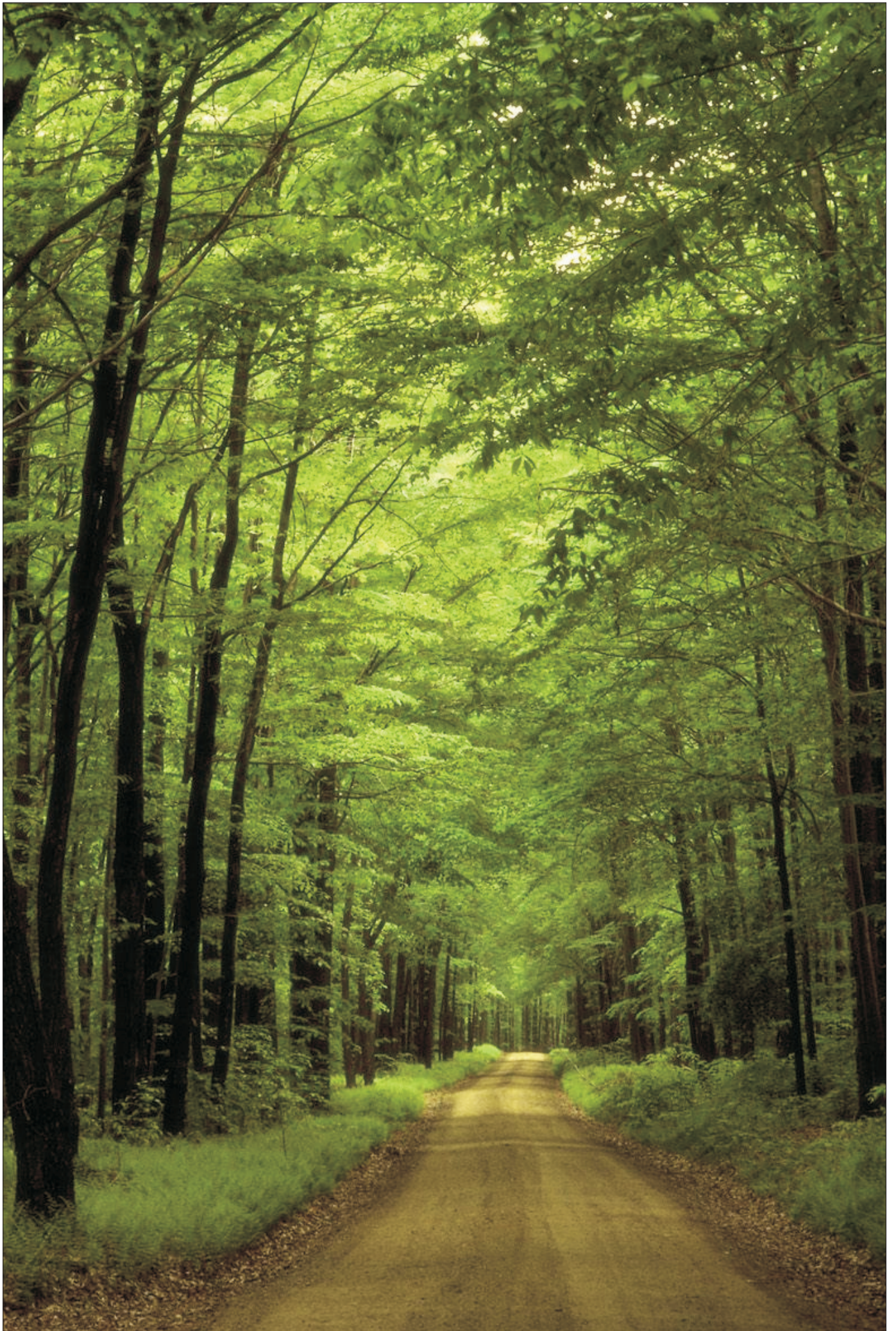
G.S.M Range : 180 to 550 g/m²
Product Type : Mill Board Paper, Craft Board Paper,
File Board Paper etc. High G.S.M Craft Paper etc.

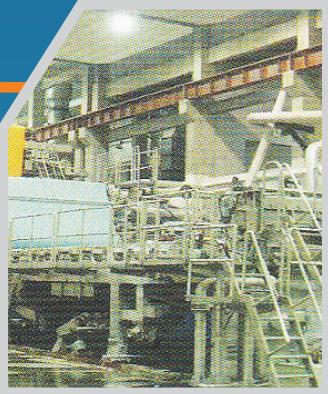
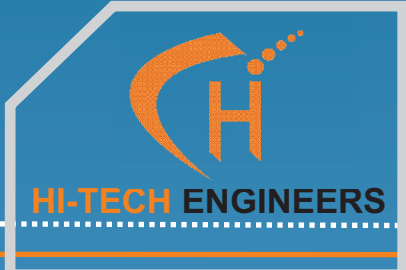


COATED DUPLEX MACHINE



G.S.M Range : 180 to 450 g/m²
Product Type : Coated Duplex, UnCoated Duplex
LWC, HWC Paper etc.



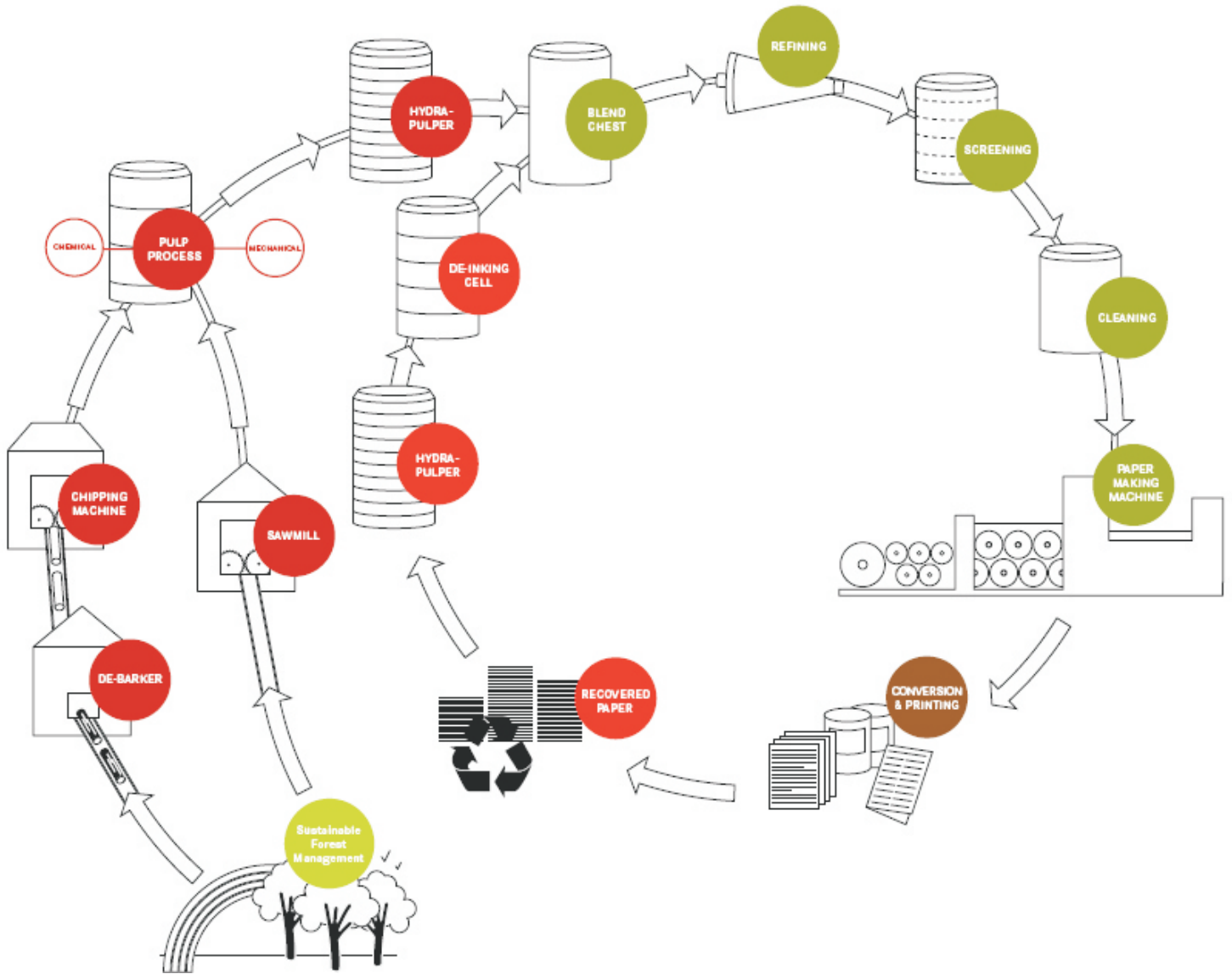


Pulping Section

Performance You Can Trust.....



HOW TO MAKE PAPER





We have taken interest in indigenizing these approach equipment and are successful in supplying a number of systems in India and Overseas countries.

The production process can be divided into 7 sub-processes:

- Raw materials processes;
- Wood-yard;
- Fibre line;

Uniform pulping is possible in Continuous Digester, only if the fibre is prepared well void of Pith, Dust, Node, Fines, Fine sand and foreign material.

We have taken great care in designing these Fibre Preparation and Wet Washing equipment and we are proud to state that we have carved a niche by successfully providing 3 Stage clean Fibre System.

Stage 1:

In Fibre Preparation, the raw material is depithed by mechanically beating the raw material repeatedly and removing the Pith, Nodes etc. to a reasonable level.

Stage 2:

In Wet Washing Section, the Twin Turbo Washer removes all heavy contraries like, Sand, Silica etc.

Stage 3:

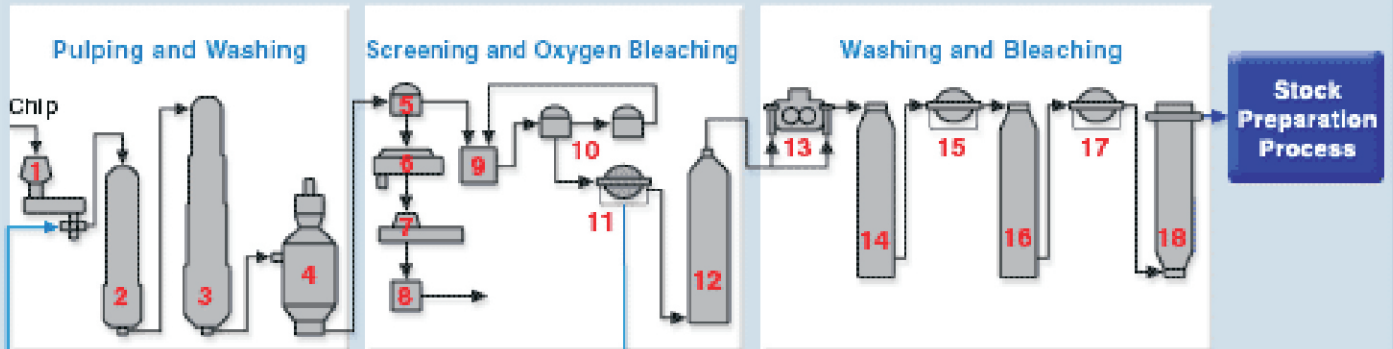
In Aqua Separator, the loosened and adherent Pith, Nodes, Dust, Fines etc., are removed.

By this 3 Stage cleaning and subsequent dewatering, we are successful in preparing Clean Uniform Pulp. These effects have resulted in achieving greater Digester capacity per cubic foot of Digester space and towards reducing the liquor ratio when pulping these raw materials.

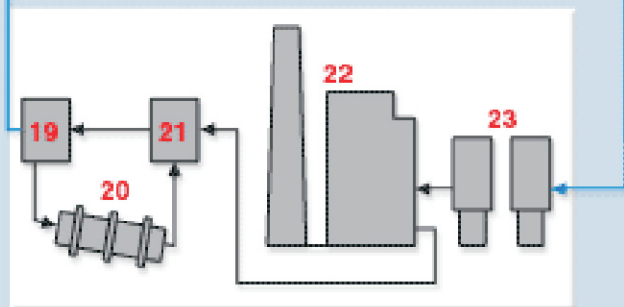
- Chemical recovery;
- Bleaching;
- Paper production;
- Products and recycling



Cooking Process

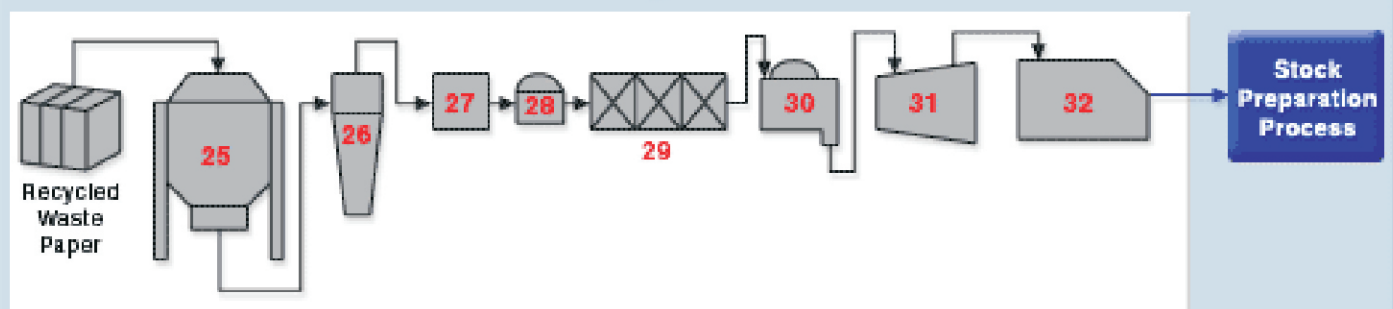


Recovery Process



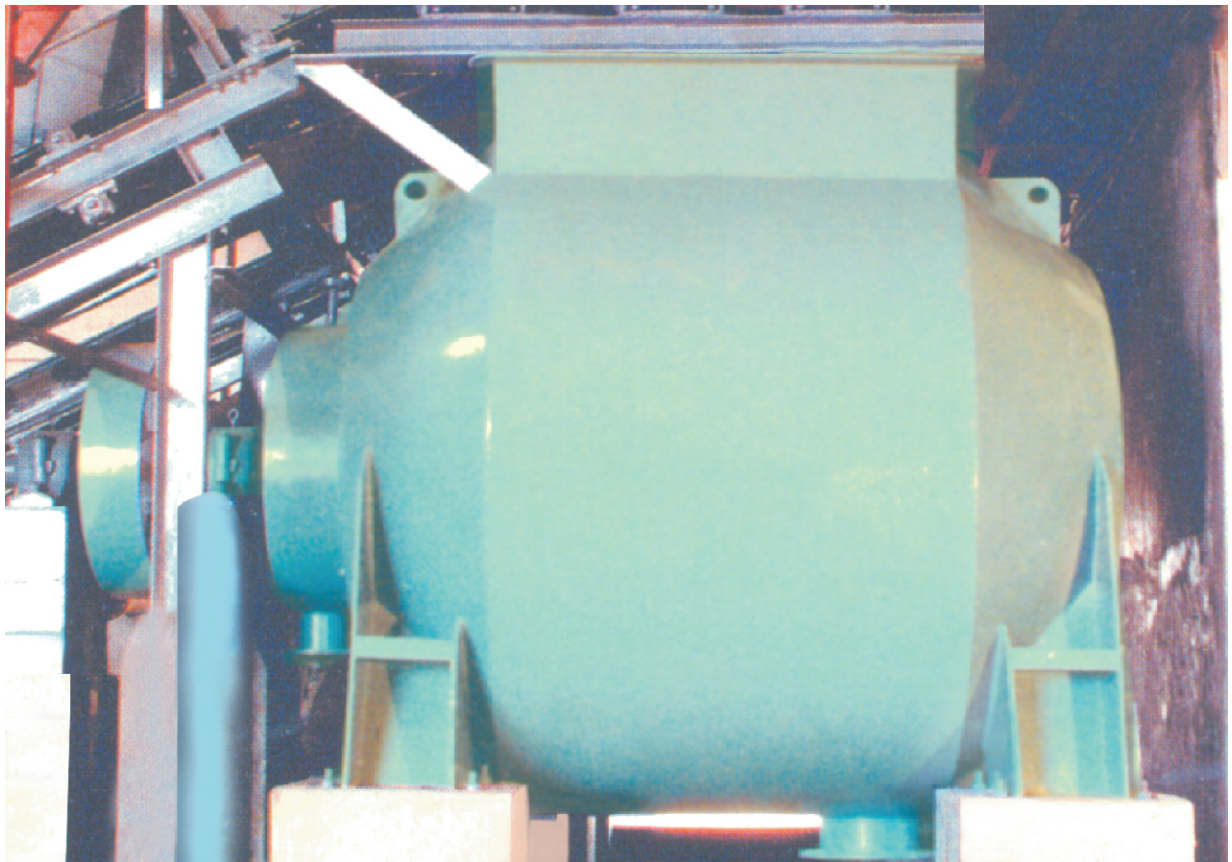
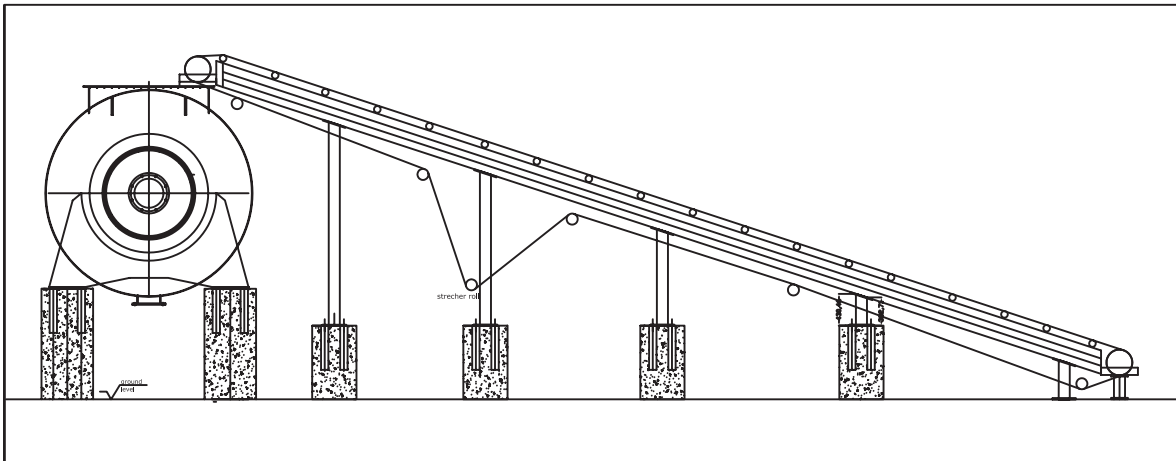
- | | |
|----------------------|-----------------------------|
| 1 Steaming Vessel | 2 Impregnation Vessel |
| 3 Digester | 4 Diffuser |
| 5 Pressure Screen | 6 Vibratory Screen |
| 7 Refiner | 8 Reject Tank |
| 9 Pulp Tank | 10 Pressure Screen |
| 11 Wash Filter | 12 O ₂ - Reactor |
| 13 Washing Press | 14 D1 - Bleaching Stage |
| 15 Washing Filter | 16 E0 - Bleaching Stage |
| 17 Washing Filter | 18 D2 - Bleaching Stage |
| 19 White Liquor Tank | 20 Lime Kiln |
| 21 Green Liquor Tank | 22 Recovery Boiler |
| 23 Evaporator | |

DIP Cooking Process



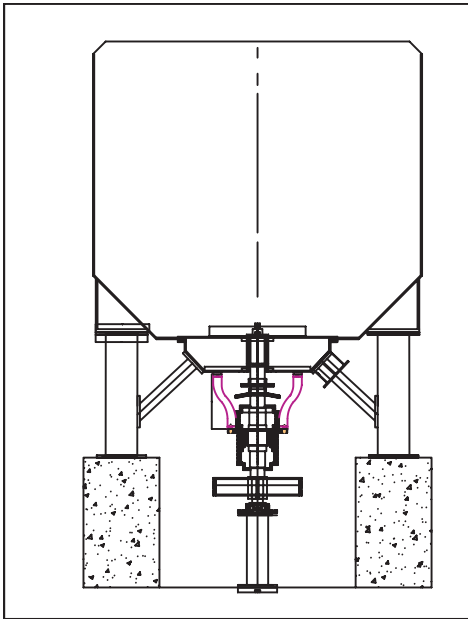
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|-----------|------------|-------------|--------------------|--------------|------------|------------|---------------|
| 25 Pulper | 26 Cleaner | 27 Deflaker | 28 Pressure Screen | 29 Floatater | 30 Thicker | 31 Refiner | 32 Dump Chest |
|-----------|------------|-------------|--------------------|--------------|------------|------------|---------------|

- Low Consistency (2 to 3%)
- Used for slashing of all type of waste paper and machine, Broke from paper machine.
- Power efficient pulper with continuous application.
- You can chose S.S. Perforated screen of 5 to 8 mm. Hole depending upon your raw material quality requirements.
- Different size depending on requirements from 3m to 14m volumetric, capacity.
- For automization suitable belt conveyor of 800 mm to 1200 mm width is optionally supplied.
- M.O.C. S.S.316 to M.S. Sandwich Material or as per requirement.



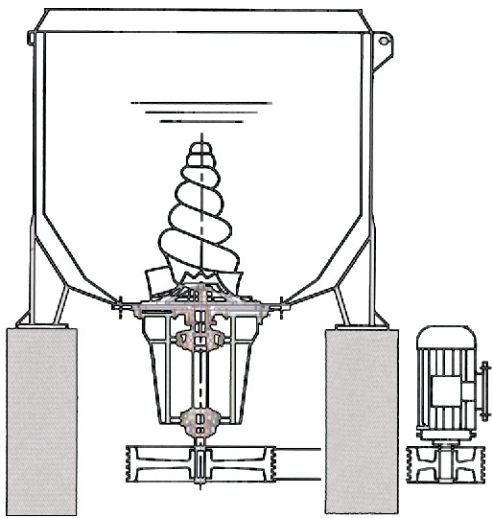


HI-TECH ENGINEERS

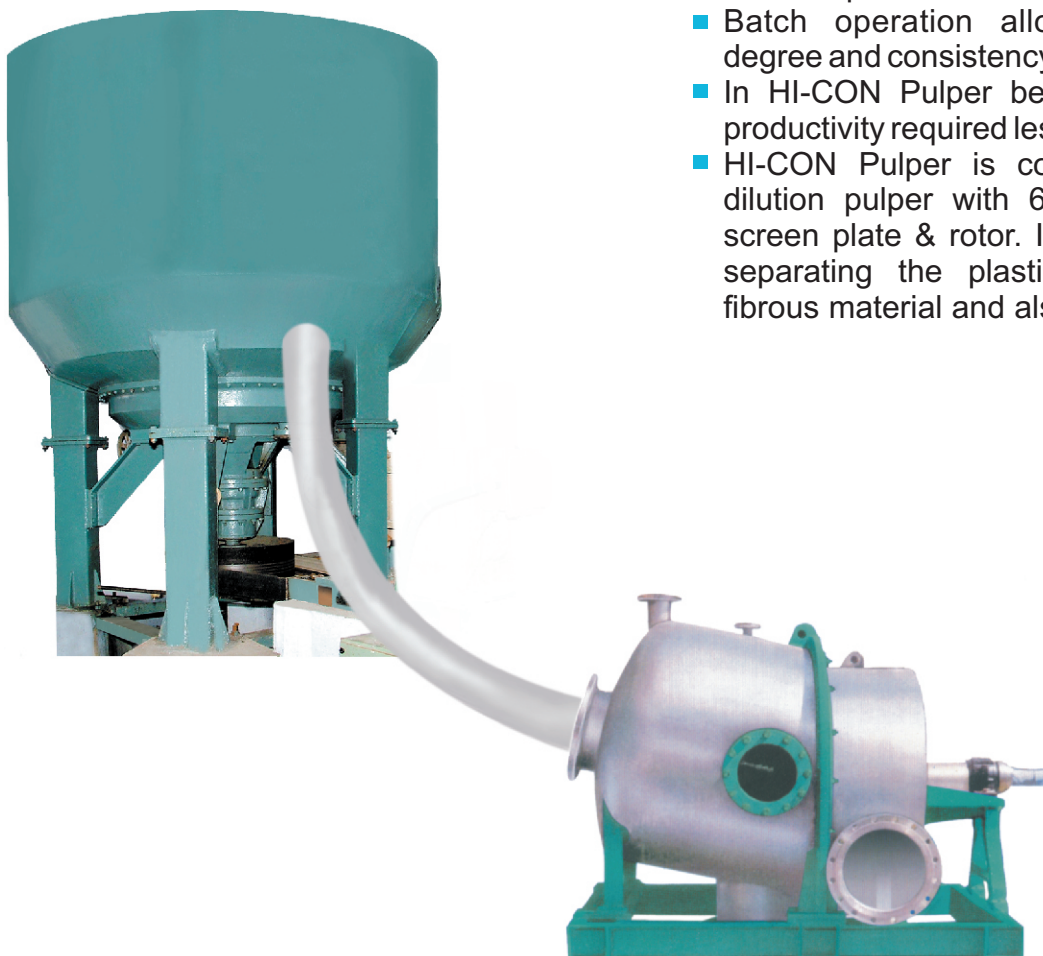


- Slushing waste paper/broke/virgin pulp in a continuous or batch operation.
- Low to medium consistency (4 to 6%)
- M.O.C. S.S. 316 to M.S. Sandwich plate fabricated & as per requirement.
- Power consumption is reduced.
- Dynamically balanced S.S. Pulper impeller with hydrodynamically designed vanes.
- Easy Maintenance.
- Capacity up to 16 cubic meter.



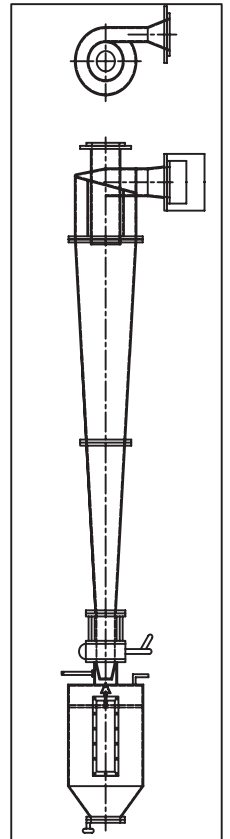


- Capacity up to 16m.
- HI-CON Pulper operates in the 12 to 16% consistency for all type of furnish.
- Excellent Defiberizing & inking.
- Due to less water & high Consistency pulp, ensures extreme fibre to fibre friction also it helps easy separation of ink from the fibers with help of chemical.
- Low Power Consumption.
- Easy separation of fibre & Contaminants like Plastic Films, Adhesive etc. Without cutting them and making easily/Eliminat in dilution pulper.
- Effective Slushing helical rotor design given relatively higher differential speeds & lower circulation.
- Lower down times - Ideal/Rotor Design avoids pulper jamming & break down. Low specific steam consumption when slushing at high temp. Because of less water require.
- Batch operation allows defined of degree and consistency.
- In HI-CON Pulper because of higher productivity required less floor area.
- HI-CON Pulper is connected with a dilution pulper with 6 to 8 mm hole screen plate & rotor. It has function of separating the plastic & other non fibrous material and also dilute the high



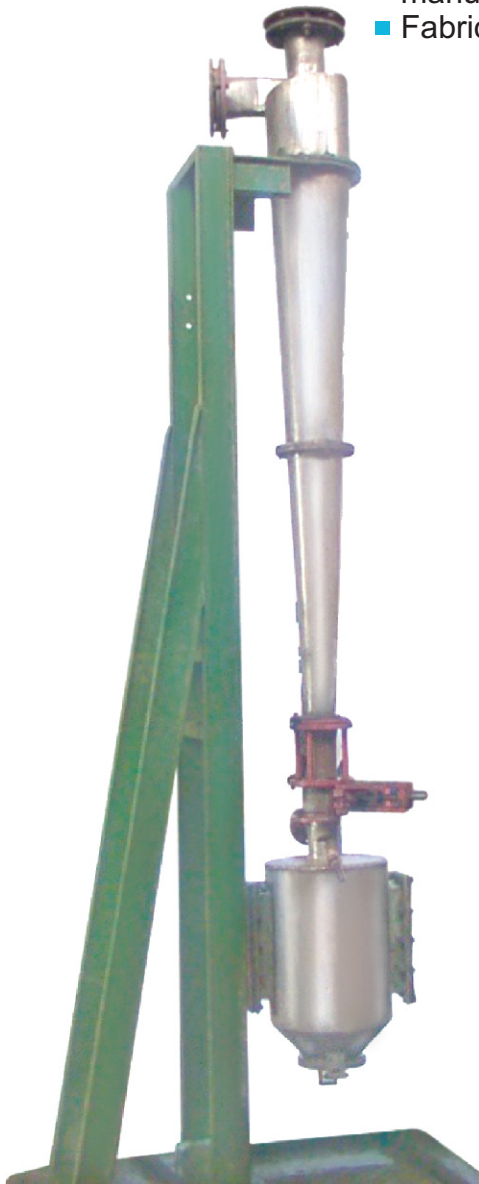


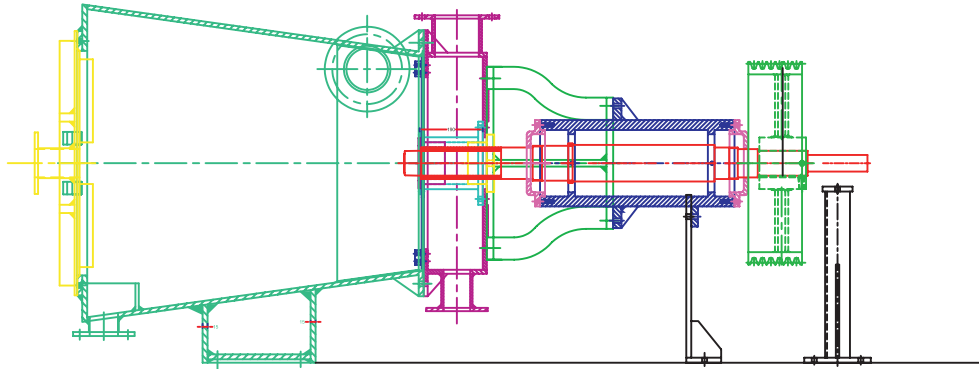
- Design to remove unwanted particles like Staples, Stones Screws, Nails, Pabbles and other debris from stock and it collected in the reject chamber.
- The Reject Chamber is provided with a glass which helps to observe the rejection collected in to chamber.
- Clogging free operation.
- It protects the rotating part of refiners, deflakers and other down stream equipment against excessive wear and breakage.
- Zero fiber loss.
- Motorized model is available.
- Customized HD cleaner up to 2500 LPM are also manufactured.
- Fabricated with S.S. 304 and 316 material.



TECHNICAL DATA

MODEL	H-25	H-50	H-100	H-150	H-200	H-250
INLET PRESSURE KG/CM2	2-3	2-3	2-3	2-3	2-3	2-3
PRESSURE DROP KG/CM2	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5	1-1.5
OPERATING CONSISTENCY %	2-3	2-3	2-3	2-3	2-3	2-3
THROUGHPUT LIT./MIN.	250	500	1000	1500	2000	2500



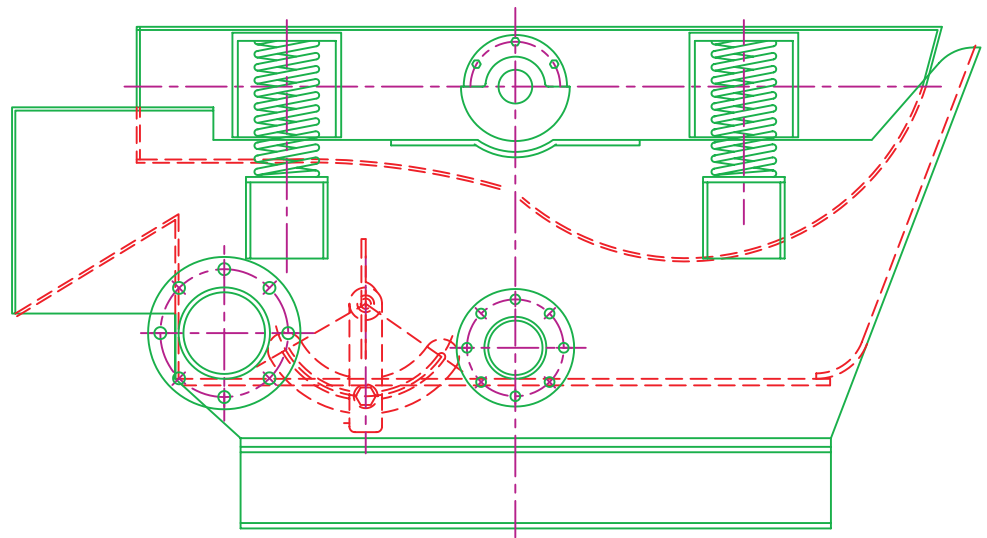


ASSEMBLY OF TURBO-500

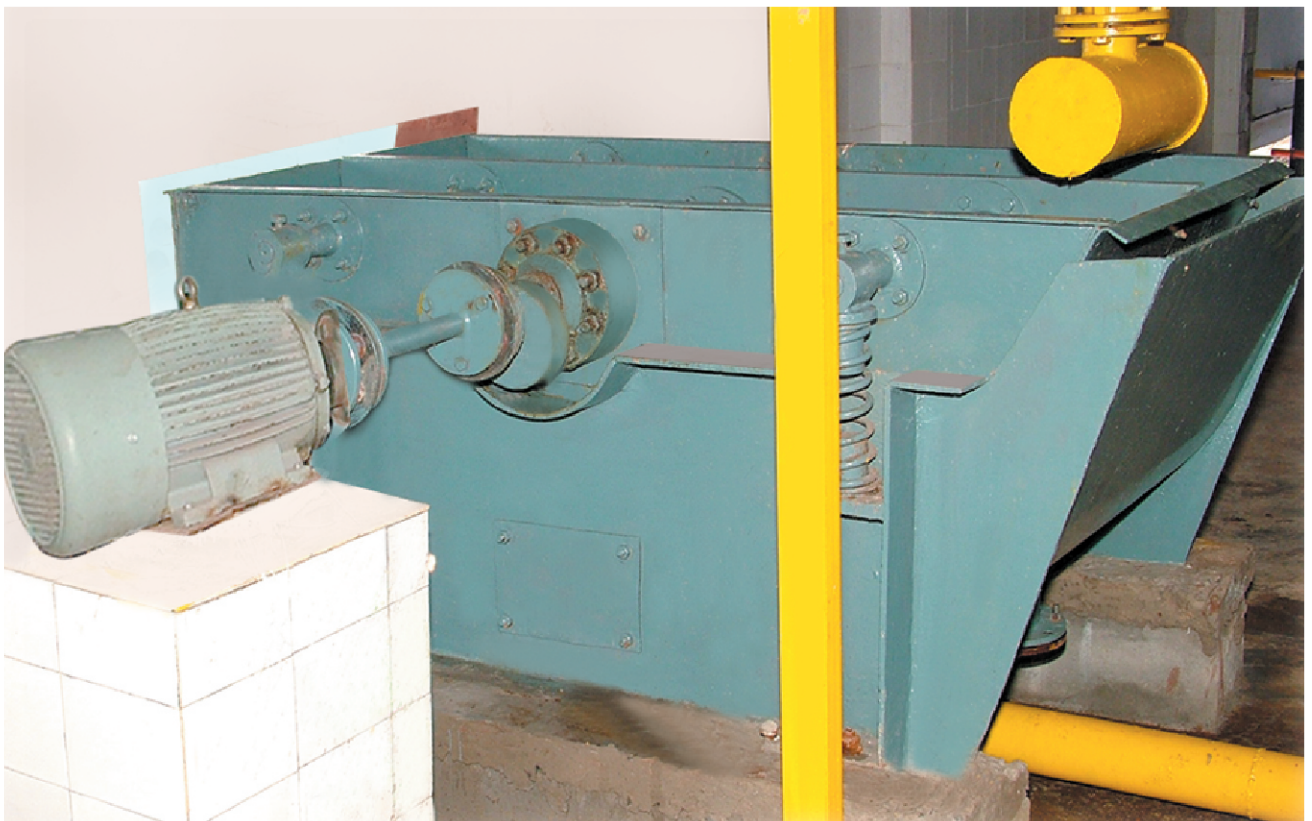
- Effective Separation of heavy & light material (Metal pieces, Pins, Plastics) from pulp.
- Easy maintenance and minimum fiber loss.
- The body is made out of mild steel with S.S. cladding. Special model is also available in S.S. 316 Sandwich plate (S.S. and M.S.) with base frame and stiffners in M.S.
- A cyclone effect is formed in the separator by the S.S. Rotor, So heavy particle are carried outward by centrifugal force to the junk trap. The light rejection is further treated in secondary separator or vibrating screen.

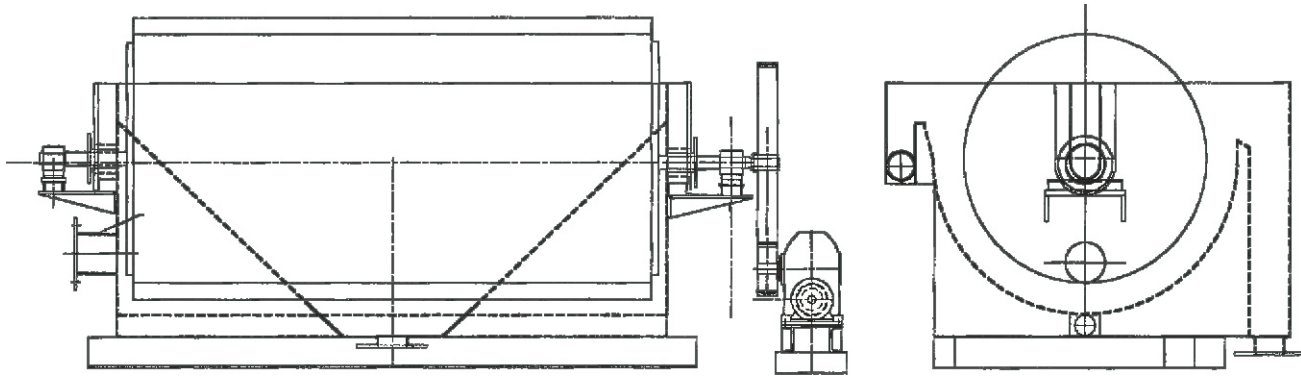
Size						
Type	T-300	T-400	T-500	T-600	T-800	T-900
Capacity tons / day	8-12	15-25	40-50	55-70	70-90	90-100
Motor rating kw	7.5-12	20-30	45-55	60-75	70-90	90-100



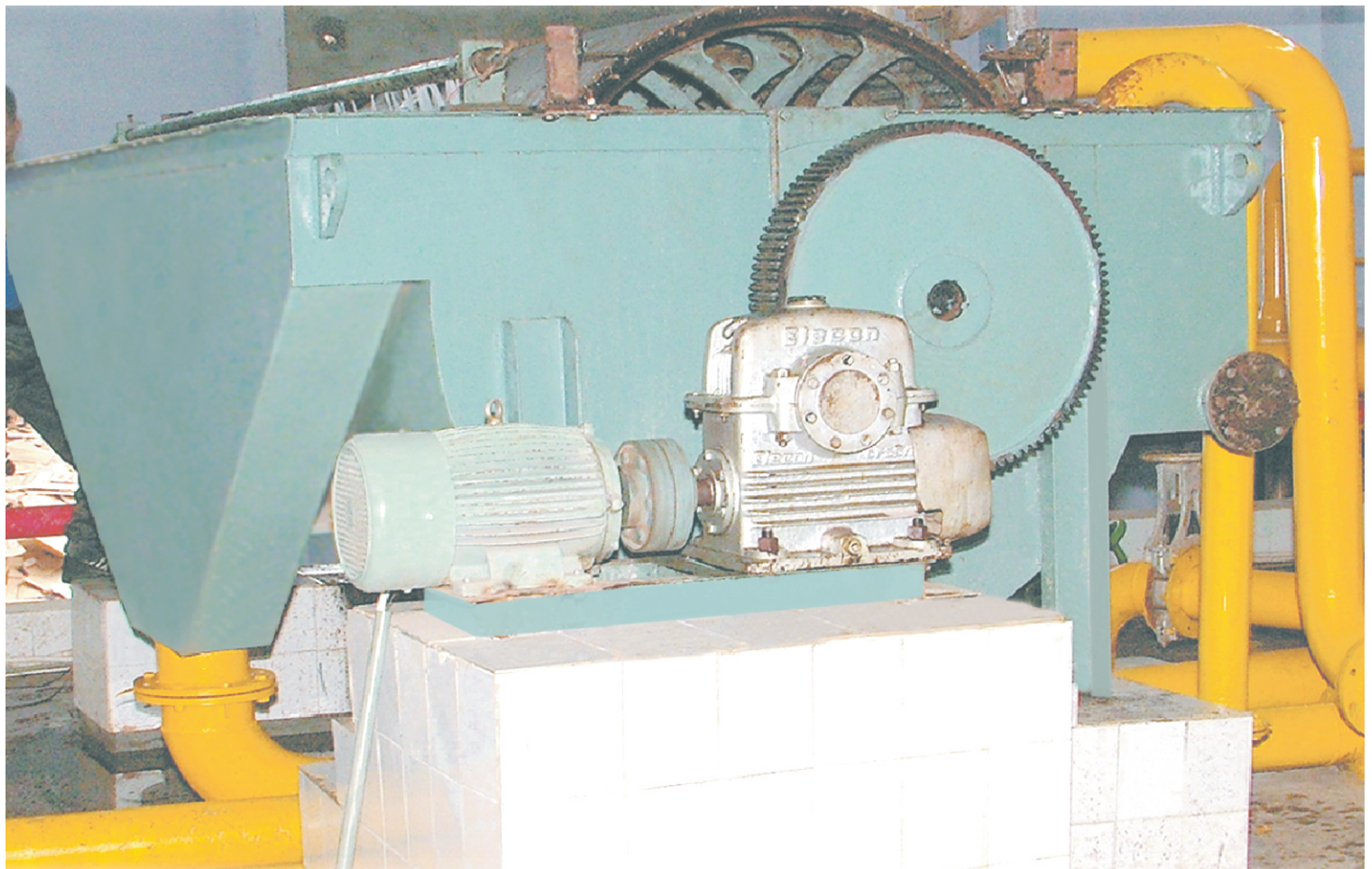


- Treatment of rejects from high consistency cleaner and other screening.
- Remove rejects like plastic, knots etc.
- Easy Maintenance.
- Size as per requirements.
- Made from M.S. fabricated body with S.S. 304 Screen.
- Perforated Screen of 2.5 to 3.0 mm hole.





- Thickner remove excess water from stock it made from CI moulds and M.S. / S.S. Vat.
- Dia 1.2 & 1.5 mt. and deckle length as per requirements of process.
- Input consistency 1% to output consistency 10 to 12%.
- Improved Design of sealing arrangement to minimum fiber loss.
- Thickner made out of S.S. / C.I. Moulds & M.S. / S.S. Vat.



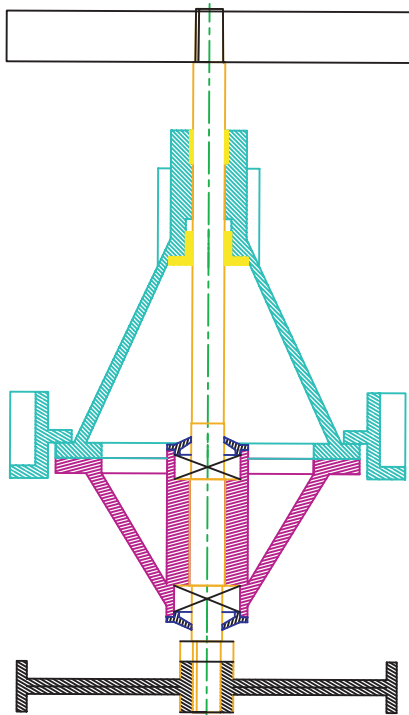


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Energy efficient agitators find application in all type of Pulp Storage Chests, including Height Density Towers, Mixing Chest & Machine Chest.

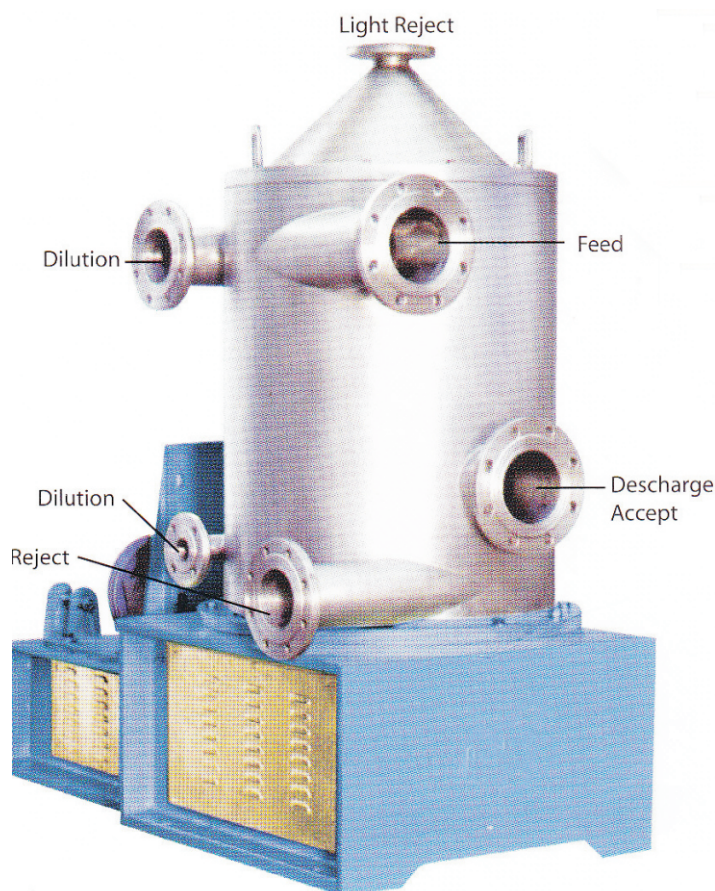
The sturdy design incorporate Bearings & Glands. located outside, optimally designed adjustable propeller blades. All parts coming in contact with stock made of stainless steel, the agitators are highly energy efficient and have the provision for adjusting the vane angle to suit specific process requirement of gentle or strong agitation.

Size	Horizontal Chest		Vertical Chest		
	Volume (M3)	Motor Rating(kW)	Volume (M3)	Motor Rating(kW)	Vane Dia (mm)
AG50/60	25-100	11-15	20-40	11-15	610-660
AG50/60	100-275	15-22	45-80	18.5-30	750-1000
			85-155	30-37	1100-1300





Medium Consistency Pressure Screen



The ideal screen for waste paper stock preparation (white and brown grade). The special rotor design allows the screen to operate at 3-4.5% consistency. The stock suspension is screened through a screen drum having perforation or slot

- We offer gland or mechanical seal (option) arrangement.
- Complete SS-304 construction.
- Low power consumption.
- Exceptional improvement in screening efficiency.
- Improve quality of paper.
- Dependable paper machine operation.
- Excellent manufacturing fitness.
- Easy change over of belt and pulleys in minimum time.
- Heavy & sturdy construction.

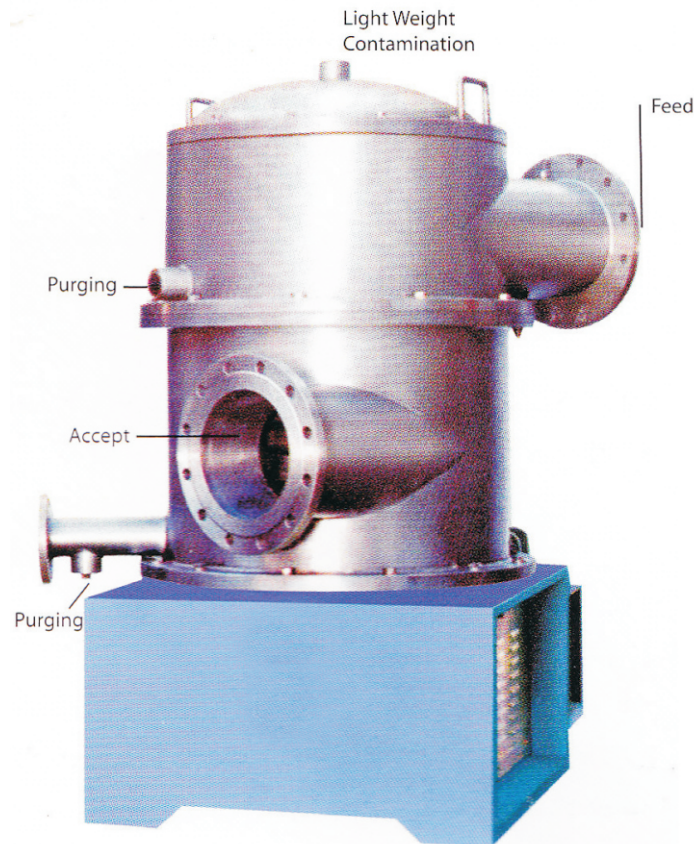
Baskets Perforated or Slotted Step Rotor

- Suitable for operation with large flat shaped contaminants.
- Special design features avoid string formation.
- Rotor edges hard faced.
- Hole or slot screen basket.
- Dynamically balanced rotor.



HI-TECH ENGINEERS

Low Consistency Pressure Screen



- Vertical screen designed for fine screening of all kind of stock suspensions at low consistency range of 0.4-1.1%
- The screens are suitable for stock preparation system and also for approach flow system ahead of paper machine.
- The MULTIVANE AEROFOIL ROTOR design ensures the screen to operate free from pulsation.
- Low power consumption.
- Exceptional improvement in screening efficiency.
- Improve quality of paper.
- Dependable paper machine operation.
- Basket-hole or slot type.
- Excellent manufacturing fitness.

Baskets perforated or slotted foil rotor

- Multi vane aerofoil rotor .
- Pulsation free rotor design.
- Special rotor design avoids string formation.
- Gentle screening.
- For low consistency hole or slot basket.
- Dynamically balanced rotor.



Applications

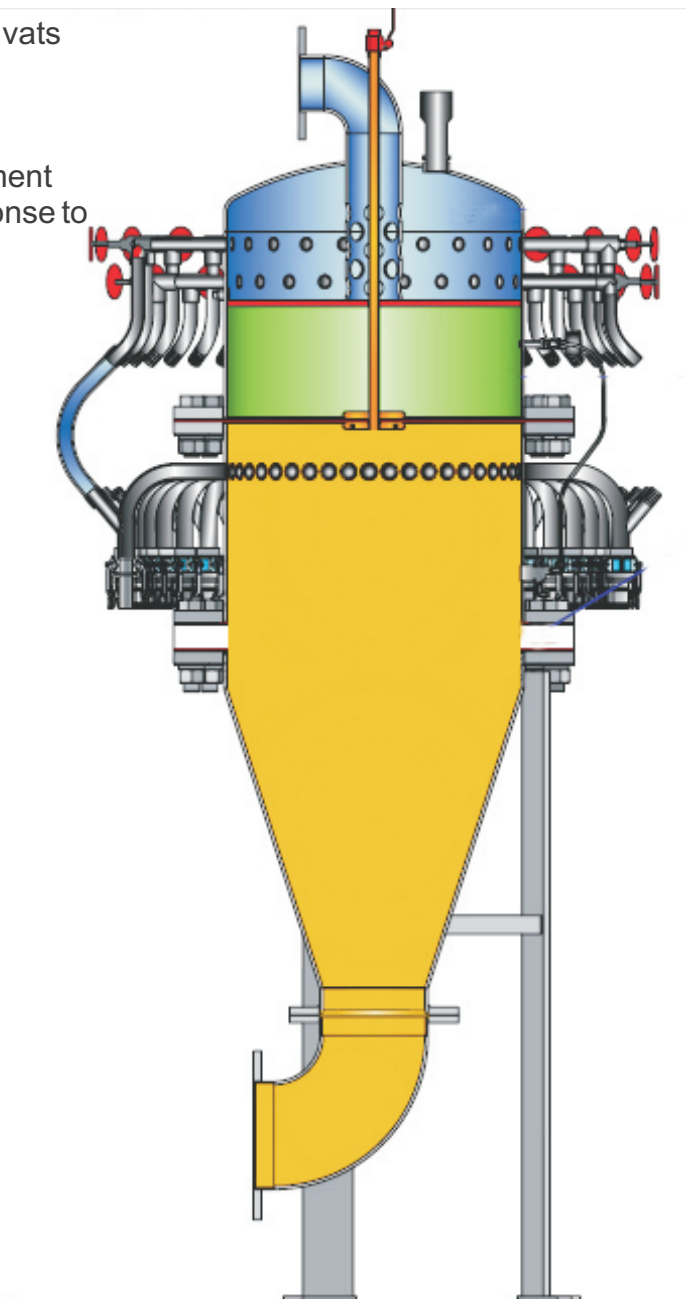
The Octopus Stock Approach System is used on a variety of head boxes, hydraulic formers, and vats to improve CD basis weight profile. This profile management tool permits the paper maker to minimize variation, improve sheet properties, and increase profitability.

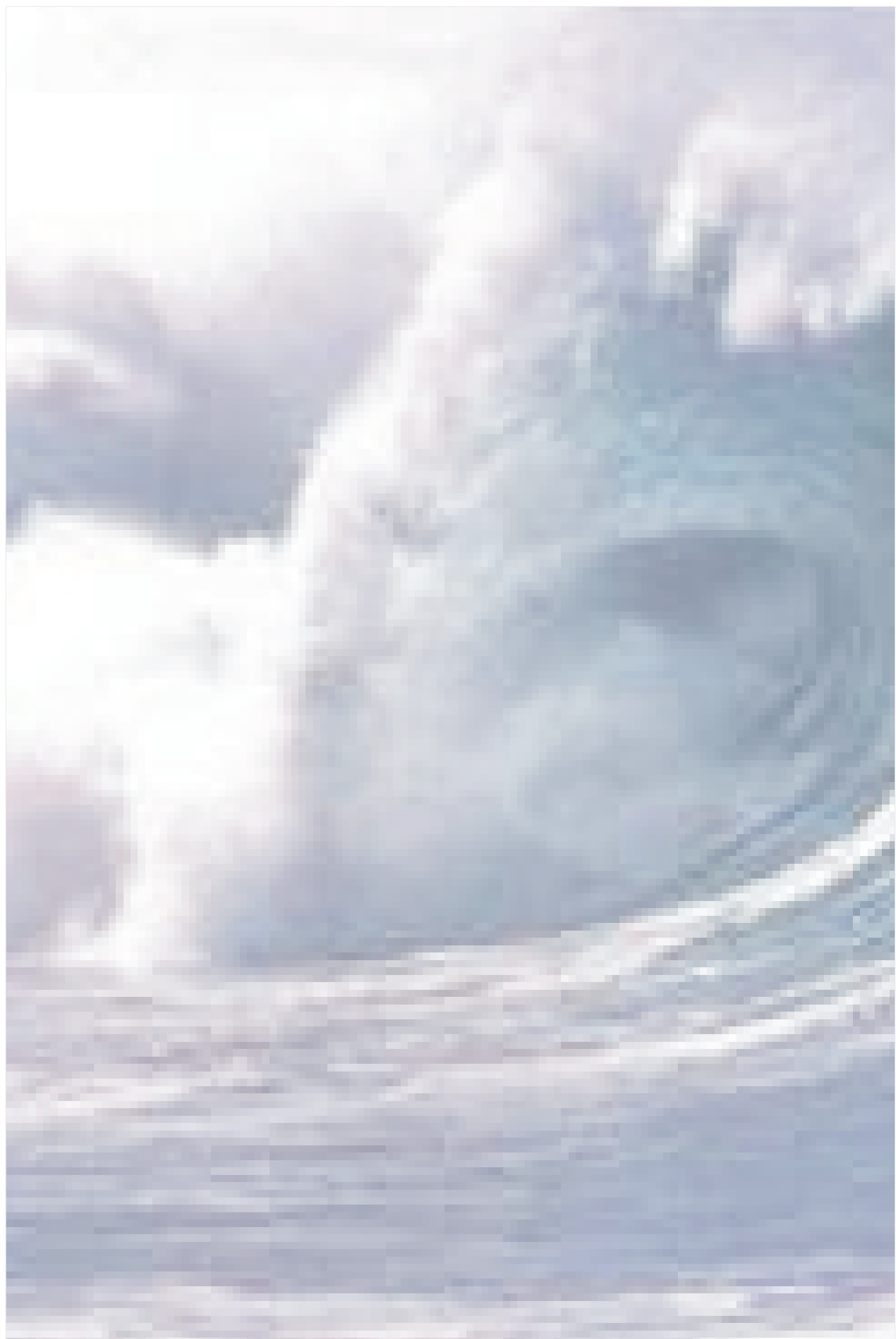
Features

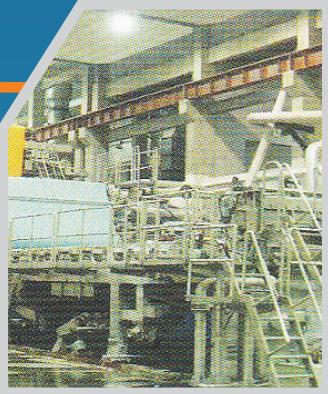
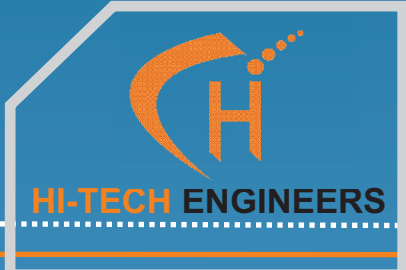
- All wetted parts stainless steel
- Automatic air pad pressure compensation control
- Optional CD consistency profiling
- Applicable to head boxes, hydraulic formers, and vats

Benefits

- Provides uniform CD flow/basis weight management
- Does not require operator to balance unit in response to Flow changes
- Dampens pressure pulsation







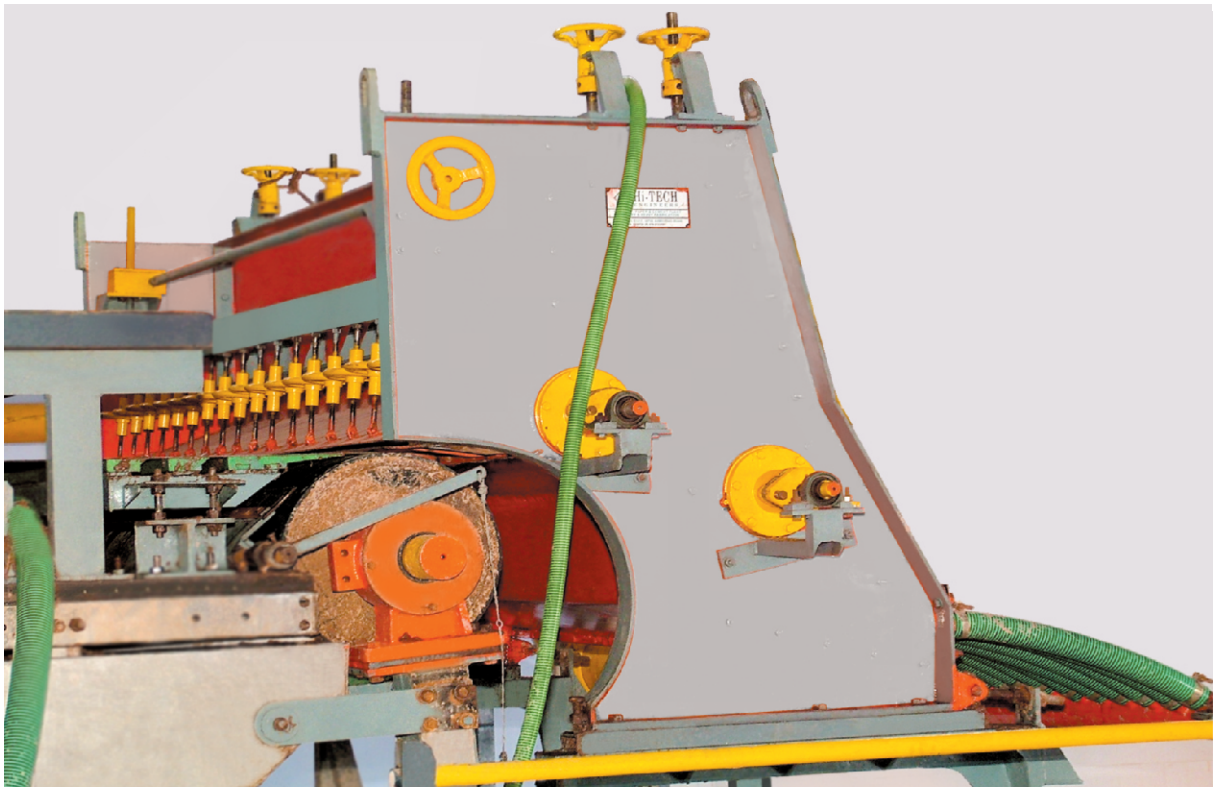
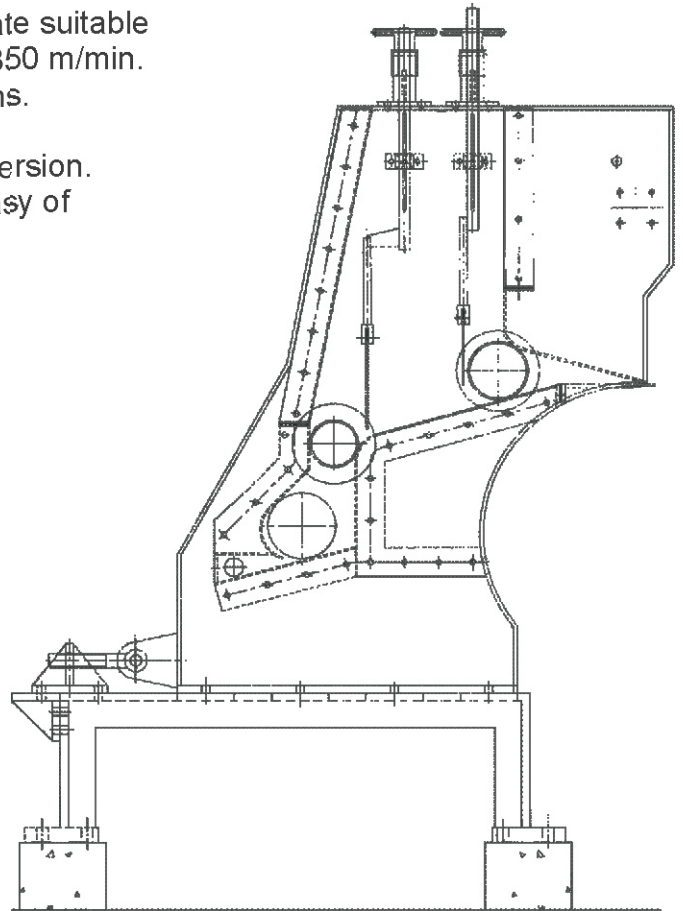
Pulping Section

Performance You Can Trust.....

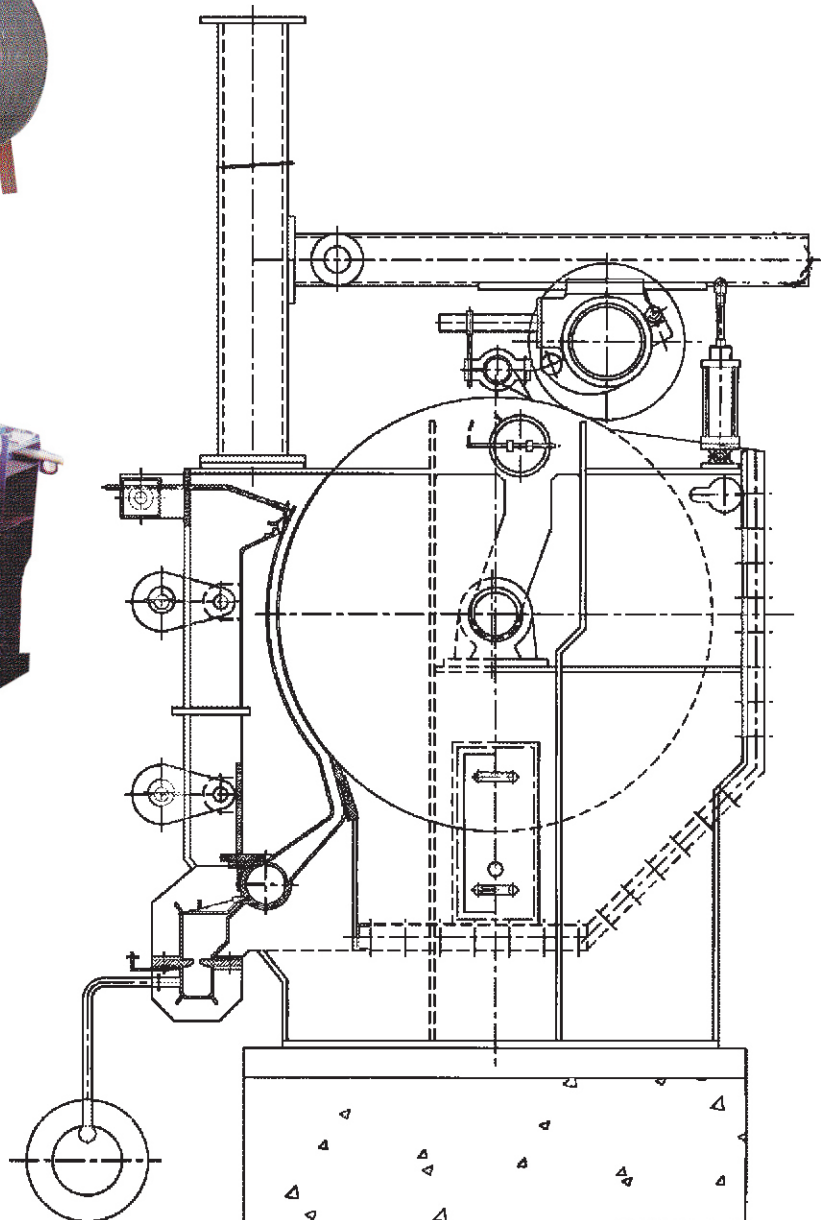
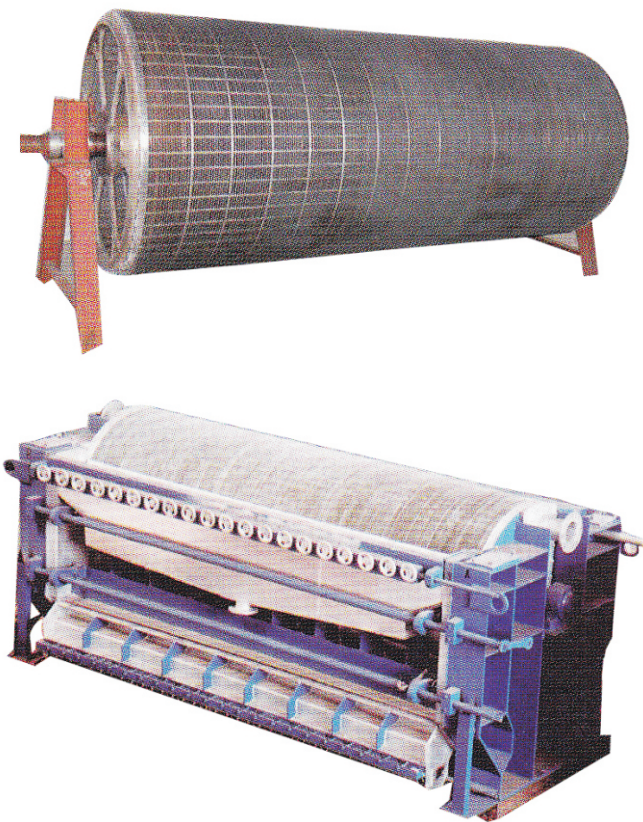


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- Open type head box made out of the S.S. 304 plate suitable for low and medium speed paper machine up to 350 m/min.
- Tapered flow header for uniform velocity conditions.
- Uniform cross direction basic weight profile.
- Two holly rolls maintain defloculation or fiber dispersion.
- Easy accessibility of inside area for cleaning & easy of operation.
- Stability of flow.
- Minimum Maintenance.
- Foam killing shower also provided.



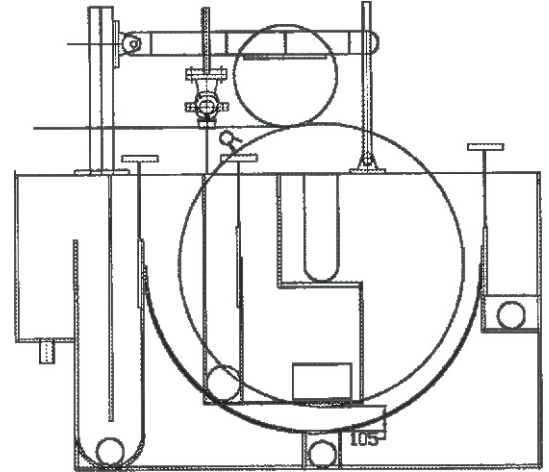
- Excellent former assembly for good formation and paper pick up of 32 to 120 gsm.
- Mould & vat completely made out of S.S. material.
- Suitable for machine up to 120mt. speed.
- Minimum profile variation.
- Tapered manifold for uniform velocity condition and evener roll for good defloculation.
- Zero fibers loss due to rubber sealing.

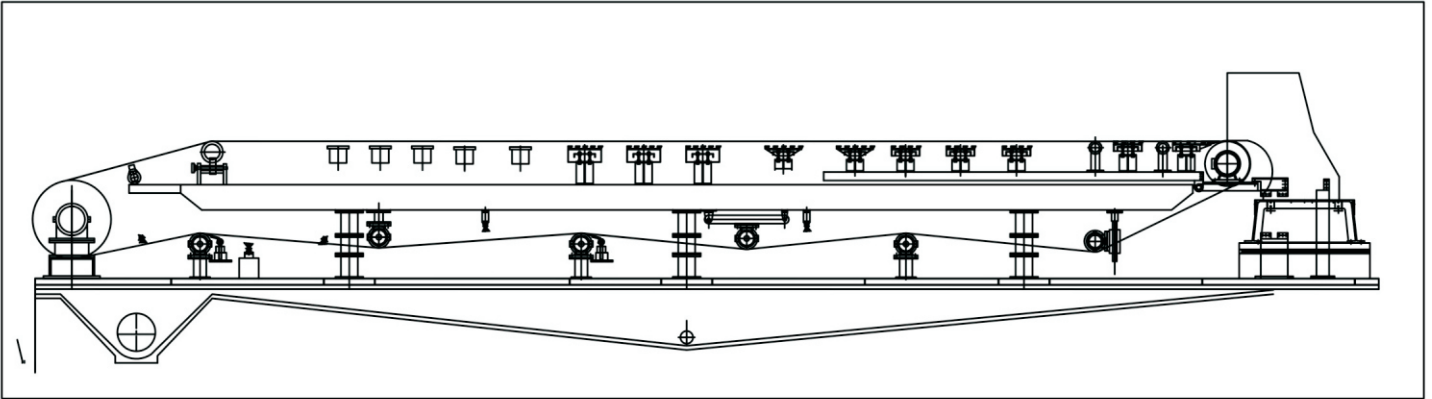




HI-TECH ENGINEERS

- It is the heart of a paper/board machine.
- It controls stock flow, pickup on the felt part and is responsible for good single layer/multi layer formation & substance profile across the full web.
- Designed according to Production requirements.
- M.O.C of Cylinder Mould.
- We also supply phosphorous/S.S./ Bronze spiders with bronze strips with 10 gauge S.S. wire winding on request.
- Tapered flow header for uniform velocity condition. Design type of Vat.
- **Counter Flow Vat-** This type used for mainly in Board M/C & Slow Speed.
- **Uniflow Flow Vat-** This type used for good formation of Craft board & duplex board.
- **DRY VAT TYPE**
- Increase in formation pressure.
- Shortening of the forming zone.
- Reduction in the amount of water carry-over from the inside of mould.
- Possibility of regulation the flow speed of stock suspension in forming zone.
- Reducing the effect of centrifugal force.





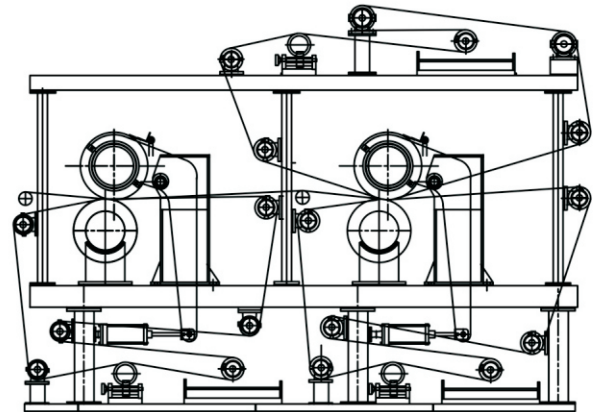
- Designed for formation & drainage capacity optimization.
- Wire Section is available either with cantilever type of run out type wire changing arrangement.
- We also provide Top wire arrangements for multi layer & High gsm.
- Consist of lo of drainage elements such as forming board, hydro foils, high Vacuum box to improve sheet formation.
- All parts in contact with water or stock are made of S.S. and corrosion resistant materials.
- Complete S.S. cladding structure is also available.





HI-TECH ENGINEERS

- The highest possible dryness should be reached with least possible number of nips.
- Pressing must not impact paper quality.
- The press section should compact, Simple and rigid Structure.
- Hydraulic & Pneumatically loaded press rolls with heavy duty framing.
- Press section is designed for 180kg. - liner cm. load for efficient water removal.
- It is double felted first nip for two sided dewatering used for higher efficiency of press.
- Heavy duty press section with roll dia 430 to 1200 mm.
- For high speed application grooved or blind-drilled roll is available.
- Large diameter presses at high press load combine optimum performance with low investment, operation and maintenance cast.
- Production increase, reduced steam consumption and efficiency incress in case of rebuilt of an excisting machine.

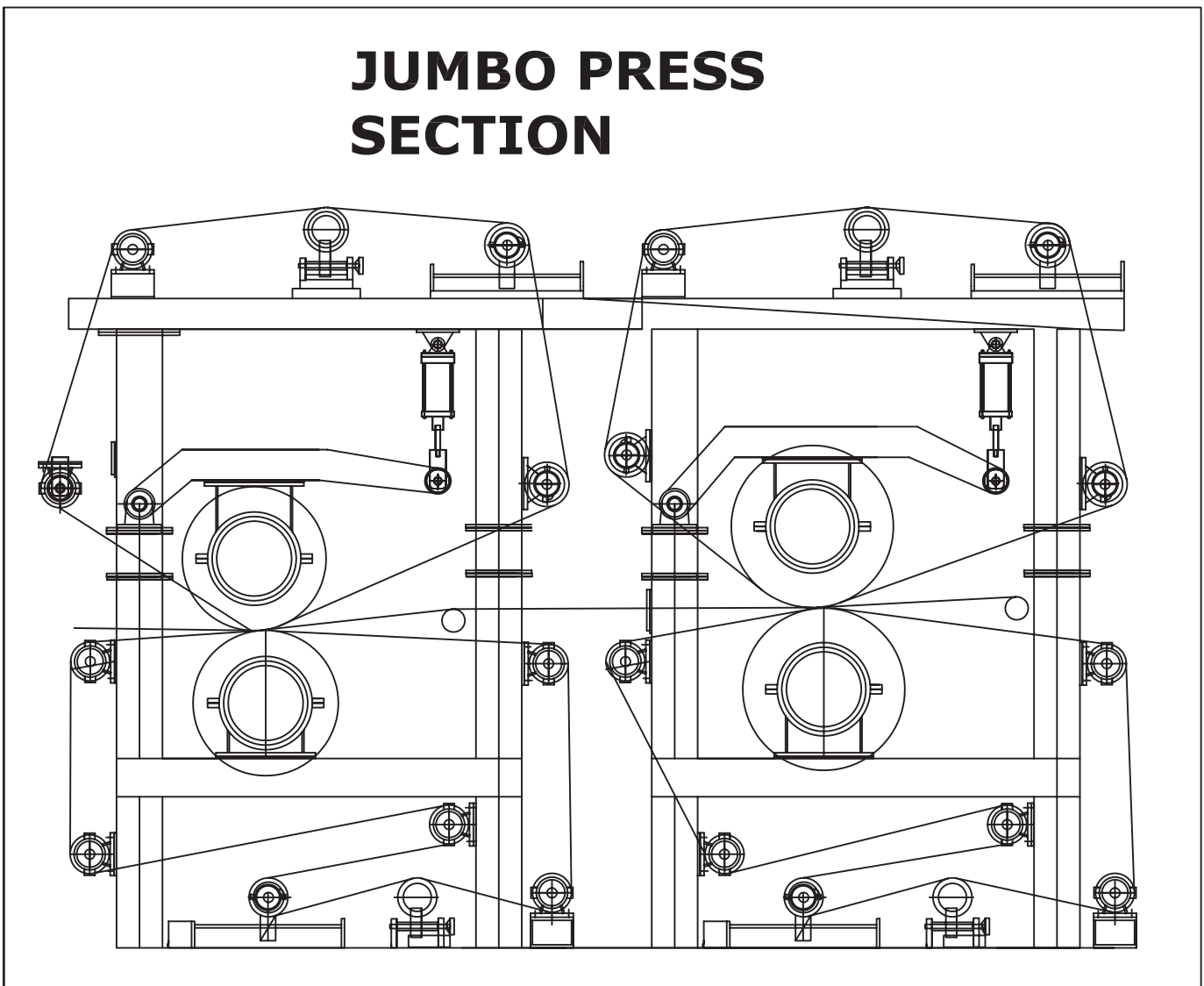


ADVANTAGES

Most suitable for kraft, liner, writing & printing or speciality paper because of

- Efficient water removal.
- High dryness achieved upto 50% in recycled furnish after this press in comparison to conventional press upto 45%.
- Production increase by 18%.
- Improve the physical characteristic of paper.
- Improve stiffness & breaking length of paper.

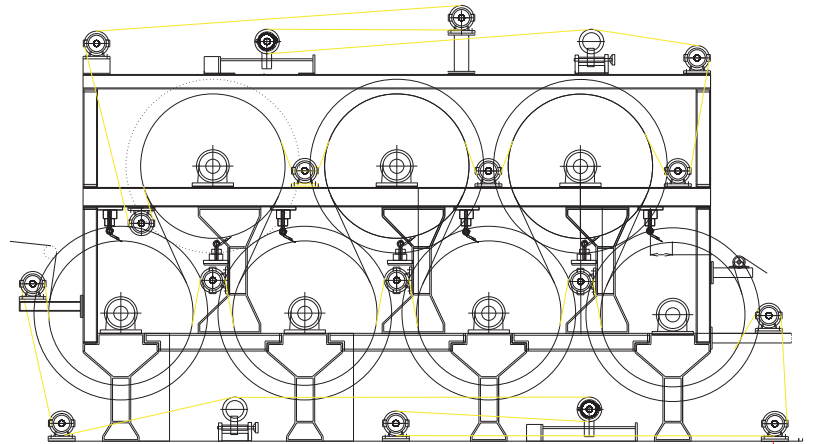
JUMBO PRESS SECTION



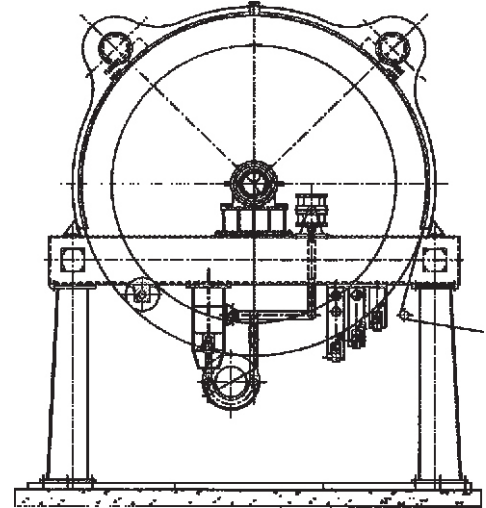


HI-TECH ENGINEERS

- Dryer Section designed to optimize the drying rate, reducing the investment cost.
- M.S. Fabricated dryers up to 2.0 mt. Dia and 25 mm to 36 mm shell thickness and the width up to 5 mt.
- Dryer is suitable for 4 to 5 kg/ cm² operating pressure.
- The dryers are mirror finished and the width up to 5 mt.
- Our dryer system components are designed to provide best drying efficiency and uniform drying control.
- Heavy duty cast iron framing is also available its excellent for vibration dampening.
- The drying cylinder can be provided with stationary syphons or inside bucket system for proper removal of condensate. (Optionally)
- For high speed application above 200 m/min rope feeding arrangement is provided



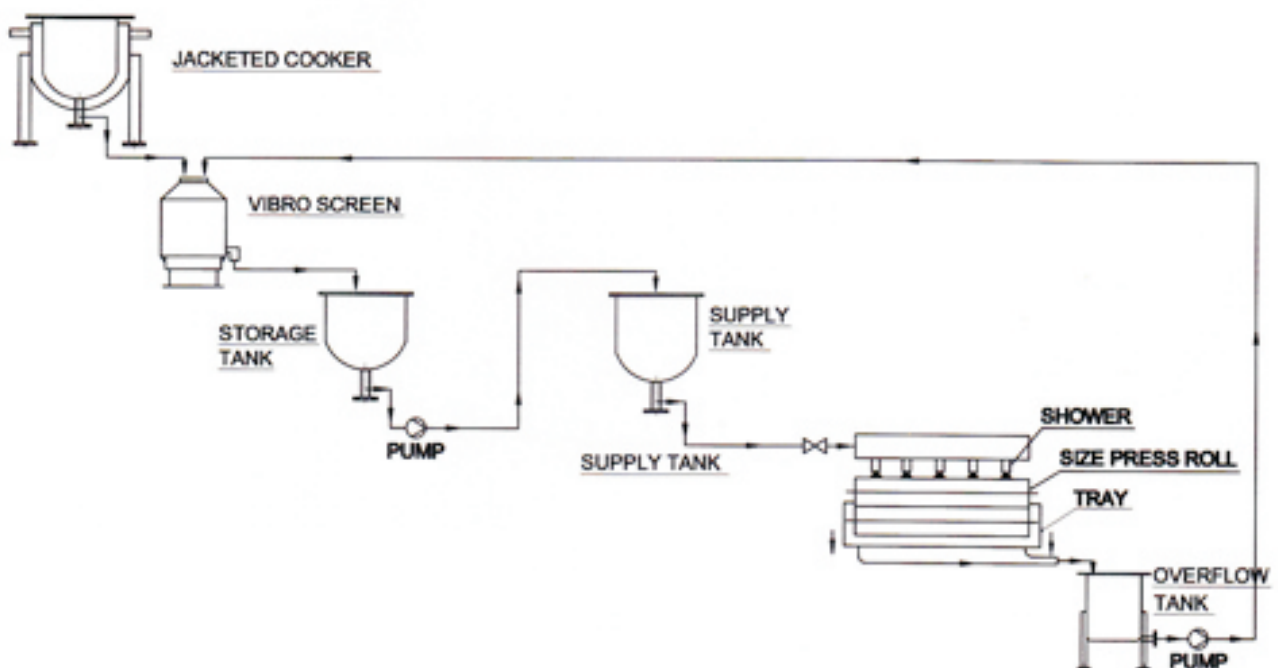
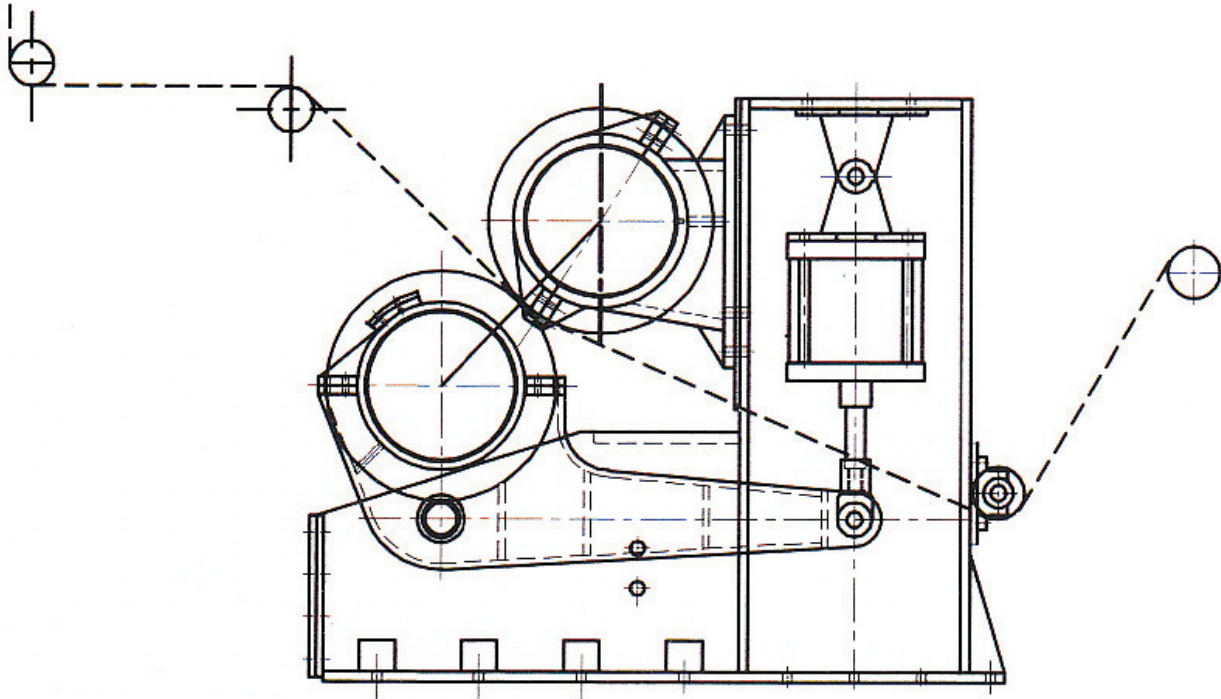
- M.S. Fabricated M.G. Cylinder upto 16 ft dia & 4.2 mt. Width.
- M.G. Cylinder are made from ultra O.K. Plate.
- M.G. Cylinder suitable for steam pressure up to 175 psi.
- M.G. Cylinder are mirror finished.
- M.G. Cylinder can be provided with scooping system for removal of condensate efficiently.
- For vibration free operation we will provide, Heavy duty M.S. Fabricated frame.
- We also provide M.G. Cylinders with S.S. Coating surface. (Optional).
- We also provide M.G. Hood for improves production & saves condensation of vapor. Hood made from M.S./S.S. Fabricated (optional).
- M.G. Spur gear & pinion also provided in M.S. Fabricated/C.I./polypic material with hobbing cut teeth so it gives noise free operation.



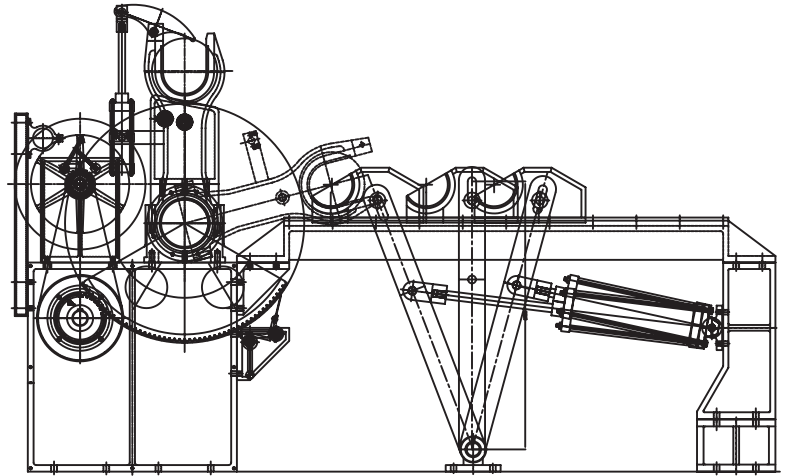


HI-TECH ENGINEERS

- Inclined size press designed for on line sizing on the paper/paper board.
- Rolls are lined with special rubber suitable for surface sizing.
- Size kitchen in SS construction.



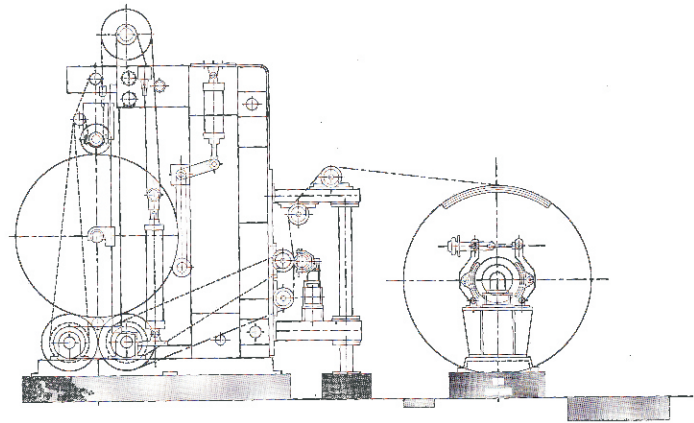
- M.S. Fabricated drum & C.I. Framing.
- Reeler is designed on the principle of circumferential winding.
- We will provided auxiliary (primary) arms is pneumatically operated for loading & mechanical arrangements for shifting of reel.
- Working (secondary) arms is loaded for pneumatically.
- Before the reeler camber pipe or camber roll are installed for creasing free reeling.
- Having pneumatic loading arrangements which ensures tight reeling and automatic reeling change over system which reduces the loss during the change over.
- Maximum paper reel Dia 2000 mm.





HI-TECH ENGINEERS

- The Rewinders are designed for precision slitting and rewinding job having high speed winding drums, maximum operating speed is up to 700 MPM.
- M.S. Fabricated body with C.I. Slides & complete slitting arrangement. Optionally we provide Heavy Duty complete C.I. Body.
- Pneumatically operated Rider Roll with complete slitting arrangement removing of wound Roll is done by pneumatically operated pusher Roll.
- On unwind stand we will provide pneumatically operated Break Drum with cooling arrangements.
- Uniforms tight winding of Rolls.
- Clean & smooth surface of Roll.
- Easy separation of slit Roll. (Without using wedges)
- Easy and quick feeding of paper.
- Rewinder is driven by D.C. / A.C. Variable speed drive.
- For slitting arrangements we are provided pneumatically or Manually loaded knives





EXPORT



HI-TECH ENGINEERS

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