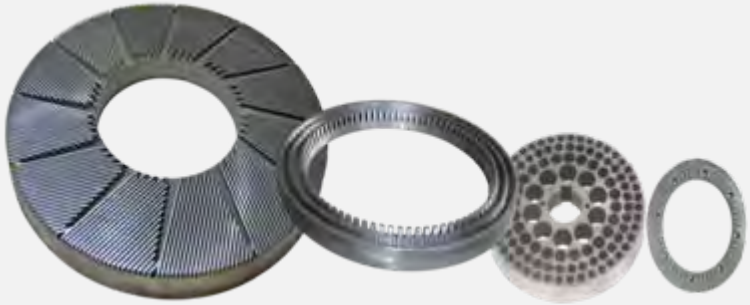
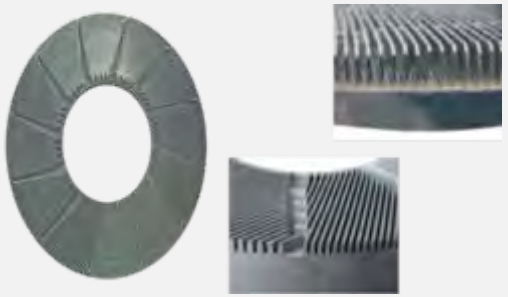
PARASON - Product Photo Gallery

REFINER DISCS IN FULL CIRCLE





FINE BAR & SUPER FINE
REFINER DISCS

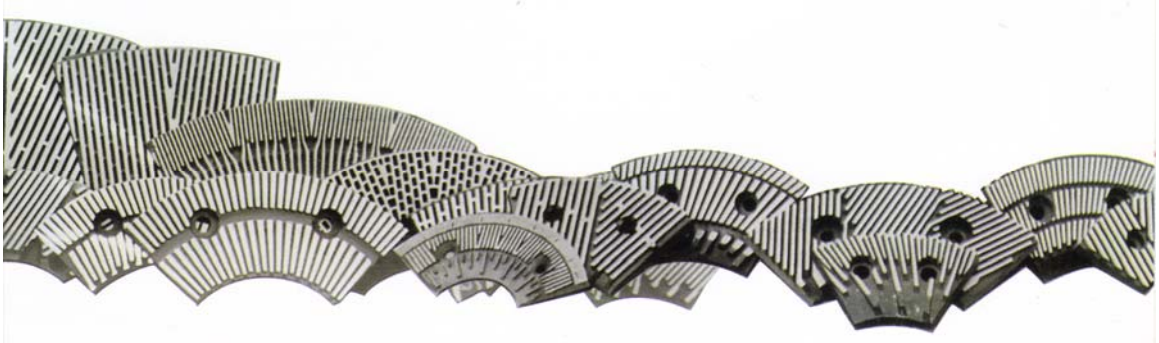
REFINER DISCS IN SEGMENTS

SPINNAKER CORPORATION

EQUIPMENT AND PROCESS SOLUTIONS

PRATISHTHAN REFINER FILLINGS

- Wide range of metallurgies developed for industry needs.
- Various patterns & bar designs available.
- Custom designed plates are developed in shortest time.
- Continuous development of new cost-effective material and designs.
- Committed to provide latest know how and application in refining.
- Keep your costs down.



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PRATISHTHAN

REFINER FILLINGS OFFERS

- Design to suit pulp & paper industry needs (pulping or refining)
- Available from 12" to 64" size and 25 HP to 8000 HP power loading.
- Ensures right alloys (stainless steel alloys).
- Excellent casted machined and finished disc.
- Power saving from 6 KW-22 KW / hrs.
- Enhanced plate life.
- Uniform process results.
- Precision disc profile with help of CNC machine for sophisticated softwares.

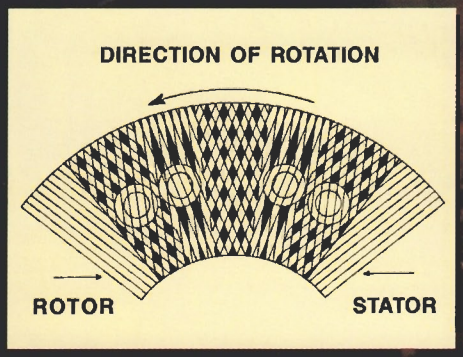
SCHEMATIC DRAWING OF BAR WEAR

BAR WITH ROUND EDGE | BAR WITH EXTENDED EDGE | BAR WITH 'ERP' EDGE

It makes a lot of sense that a refiner disc should have a uniform wear properties. Normally the variation in the wear of the refiner plates may be wavy, serrated or flat type.

The wavy & serrated wear cause maximum fiber damage and multiple disadvantages of high power consumption, increased cost per tonne, load variations etc.

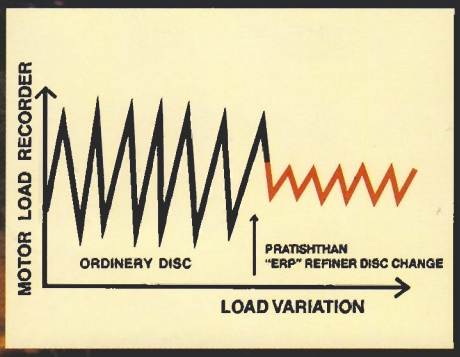
PRATISHTHAN has innovated the concept of 'ERP' that is Edge Retention Property during streneous conditioning of refining 'ERP' plate has flat wear.



SCISSOR ACTION :

Refining plates works on the principle of scissors. The multiple resolution and number of bar crossings creates millions of scissors edges. Refining takes place at the bar edges, hence it is essential to have right angle bar edge during refining.

Casting is done by using the latest technology to provide the best condition for the alloys in temp., time, melting technique to determine the best suited alloy much consideration is given to erosion, corrosion, wear resistance our of refiner plates.



IMPROVED ENERGY EFFICIENCY

PRATISHTHAN DISC with 'ERP' has shown improvement in the energy consumption with power saving from 6 KW / hr. to 22 KW / hr. in various applications grossly the power saved annually adds to profitability of the mills.

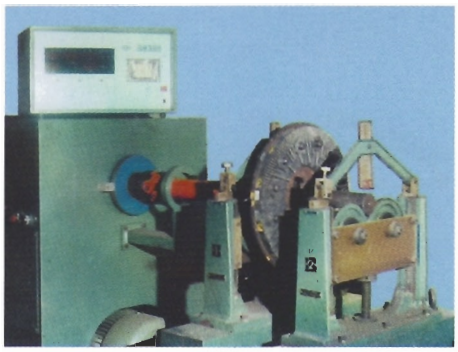
Modern Integrated manufacturing Centre....

CAD / CAM / UNIGRAPHICS

CAD / CAM software are used to design the plates accurately.
Results : Precision product and in time delivery.

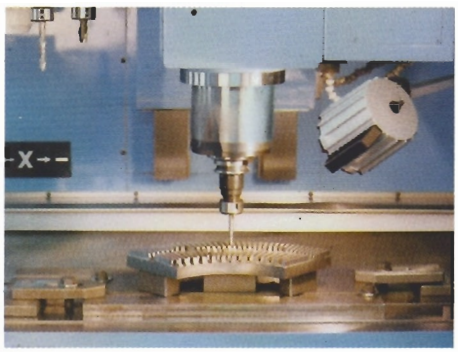
PLASMA CUTTING PROCESS

Highly sophisticated plasma cutting process and other facilities meet todays pulping challenges.



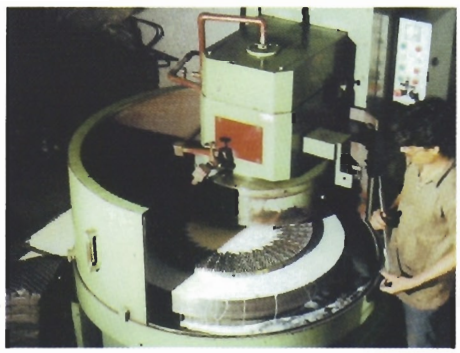
DYNAMIC BALANCING MACHINE

Balancing refiner plates is of critical importance. Our electronic balancing system provide a level of precision second to none in the industry.



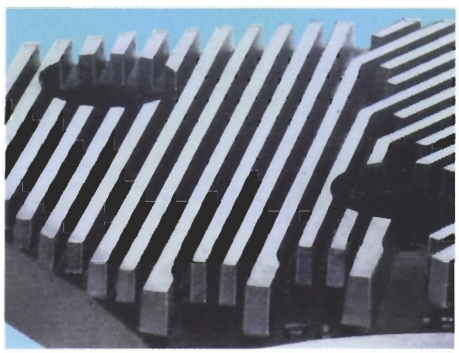
CNC MACHINES

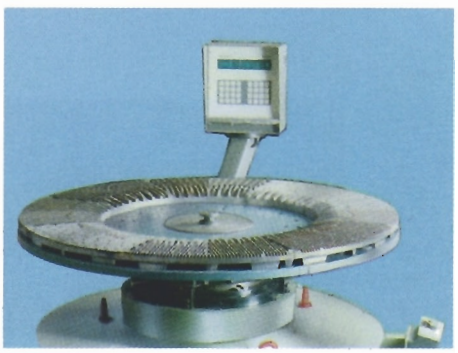
Ensures perfect profile of patterns.
Results : consistant dimensional accuracy.



SURFACE GRINDERS

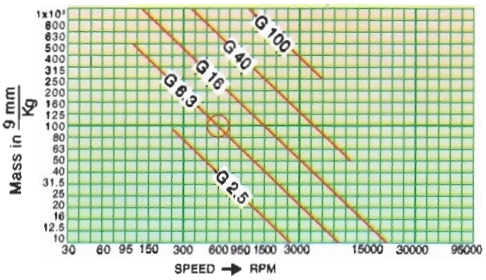
Heavy duty precision surface grinders enables to grind complete circle at one time and ensures perfect parallelism of both surfaces of disc.



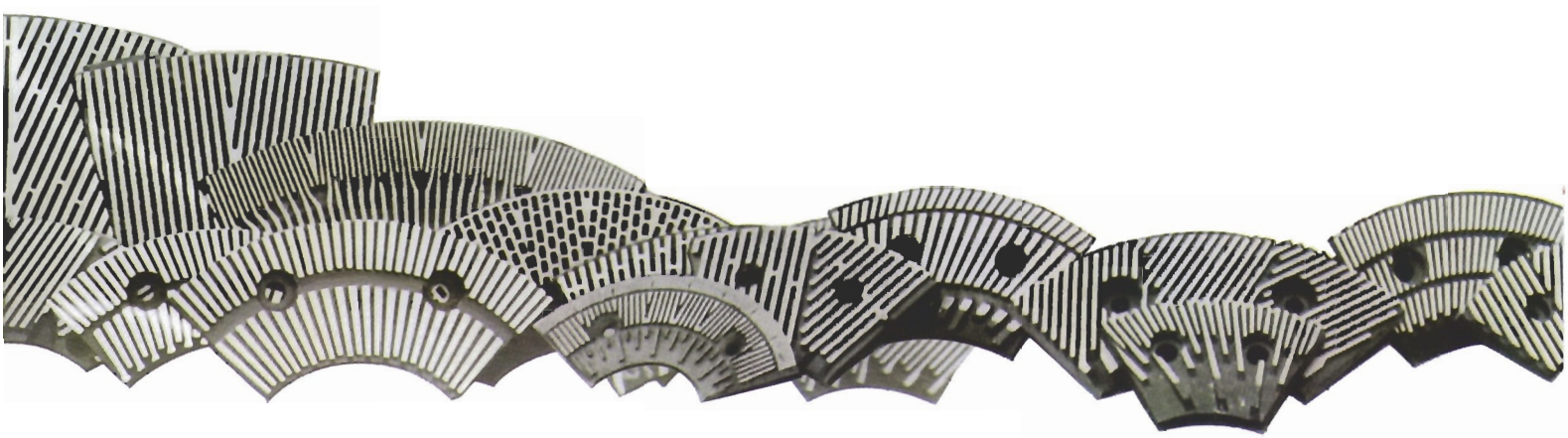


STATIC BALANCING MACHINE

(Schenck, Germany)
Perfectly balanced for smooth and long service.



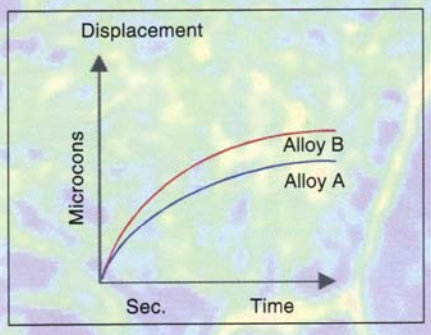
Maximum service speed of rotation static and dynamic balancing done for static or rotor plates with the G value of 6.3 (9 mm / kg.).



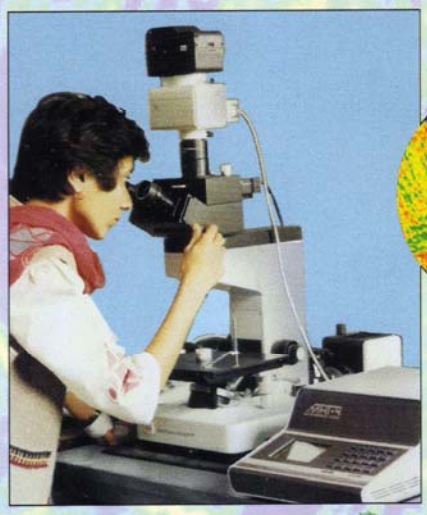
Research & Development Wing ... a commitment to excellence

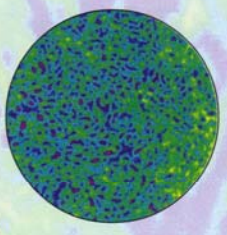
PROCESS DATA APPLICATION
The technical process parameter at various paper mills is collected periodically to offer the correct product with continuous improvement in paper industry.

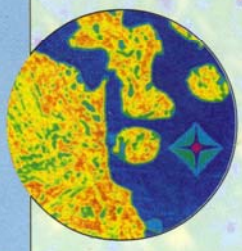
PROFILE CHECKING & ANALYSIS
The alloying elements are controlled for every melt with the help of multi channels lab spectrometer for correct control on chemistry.



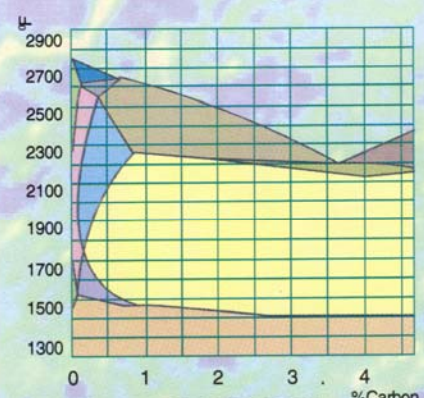
SPECTROMETER
Spectrometer helps maintain consistent compositions.
Result : Repetitive and predictable refining effect.







WEAR ANALYSER
Unique facility of PRATISHTHAN R & D each batch of refiner discs are checked at R & D division by creating similar process condition of refining application.



FE-C-CR PHASE DIAGRAM
- LIQUID
- FERRITE
- AUSTENITE
- LIQUID + FERRITE
- LIQUID + CARBIDES
- LIQUID + AUSTENITE
- FERRITE + CARBIDES
- FERRITE + AUSTENITE
- AUSTENITE + CARBIDES
- LIQUID + FERRITE + AUSTENITE
- LIQUID + AUSTENITE + CARBIDES
- FERRITE + AUSTENITE + CARBIDES

ELECTRONIC IMAGING
(Leica, Germany)
Latest metallurgical microscope and image analyser are used for ensures constant morphology & uniform carbide distribution.

REFINER PLATE METALLURGIES

Alloy	Hardness HRC	Corrosion Resistance	Abrasion Resistance	Impact Resistance	Wear
CA-40	50	A	B	A	Flat
440-C	52-53	B	A	A	Flat
C-45	48	A	B	B	Flat
SA-Alloy	55	C	A	C	Serration
17.4 PH Alloy	38	A	C	B	Flat

* Above table is just for reference
* Practical conditions to be studied and consulted.
* A ⟶ Best ; C ⟶ Poor.
* Due to constant research and development specifications are subject to change.

North America Distributor

SPINNAKER CORPORATION
EQUIPMENT AND PROCESS SOLUTIONS

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