SCREEN BASKETS

OPTIMIZED SCREENING SOLUTIONS
For Efficient Cleaning with Reduced Energy Consumption

the refining people
INNOVATIVE DESIGN:

Parason’s manufacturing standards are the most stringent in the industry. Screen baskets are extremely durable and have high resistance to abrasion, corrosion and impact damage.

The flexibility of the process allows to manufacture of custom made Screen baskets for all types of applications: new plant, expansions or upgrades.

→ Custom designed and engineered
→ Longer lasting
→ Lower maintenance
→ Affordable cost
PARASON OFFERS

PARASON SCREEN BASKETS

Pulp Mill → HC
Pulp Mill → MC
Pulp Mill → LC

Stock Preparation → MC
Stock Preparation → LC

Approach Flow → LC

Broke System → LC

FLOW DIRECTION

Outward Flow → Slotted
Outward Flow → Hole
Outward Flow → Profile Hole
Outward Flow → Step Hole
Outward Flow → Taper Hole
Outward Flow → Countersunk Hole

Inward Flow → Slotted
Inward Flow → Hole
Inward Flow → Profiled Hole
Inward Flow → Step Hole
Inward Flow → Taper Hole
Inward Flow → Countersunk Hole

Size - Ø 200 - Ø 2000mm
Screen Make - Parason & Any Make

LC: Low consistency
MC: Medium consistency
HC: High consistency
HOLE BASKETS

Parason hole screen baskets are highly sophisticated and manufactured in modern drilling workshops using the best available manufacturing technology. Due to optimized pitch design we can achieve the highest open screen areas.

Applications

Parason hole screen baskets are ideal for use in stock preparation, as well as broke system, pulp mill, approach flow screening, for Parason screens and for all current machines and associated rotor combination of other suppliers.

→ Stock
→ Broke
→ Approach flow
→ Pulp mill

Top View
HOLE BASKETS

Isometric View

Straight Hole
Countersunk Hole
Taper Hole
Profiled Hole

Open Area Calculation

Open Area (%) = \( \frac{d \times 90.7}{t} \)

Open Area (%) = \( \frac{d \times 78.5}{t \times t'} \)

Open Area (%) = \( \frac{d \times 78.5}{t \times t'} \)

Open Area (%) = \( \frac{d \times 90.7}{t'} \)

Types
Straight Hole, Taper Hole, Hole with Profile, Hole with CSK, Hole with Breaker Bars etc.

Size
Inside Diameter Minimum from Ø320 mm - Maximum Ø2000 mm & Height up to 2000 mm.

Drill size
Start from Ø1.0 - Max. Up to any standard required size.

MOC
MOC: Sheet: SS316, Support ring :SS304

Inspection
We perform 100% inspection of each basket. 100% QC product

Surface finish
Surface Finish - Electro Polishing, Hard Chrome Plating (Plating thickness from 100 microns to 400 microns)

Constant advances in our manufacturing methods yield the highest precision in different hole designs and roundness of the screen baskets. Each screen goes through hard-chrome process for wear resistance quality which increases basket life.
SLOTTED BASKETS

As a leader in stock preparation equipment manufacturing, Parason has been developing profiled wedge bar basket from last few decades. Parason baskets efficiently remove dirt, specks & stickies to improve properties like cleanliness, strength, brightness, whiteness and printability of paper.

Applications

Parason screen baskets are developed for using in stock preparation as well as broke system, pulp mill, approach flow screening for Parason screens and for all existing non Parason screens and associated rotor combinations of other manufactures.

Continuous improvement in our manufacturing methods yield the highest precision in different slotted designs and roundness of the screen baskets. Each screen goes through hard-chrome process to improve wear resistance property for better life.

APPLICATION BASED WEDGE BAR DESIGNS

Parason has developed different wedge wires considering wide range of screen basket applications as per:

→ Open area requirement
→ Slot size
→ Strength
→ Fiber length

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3 WEDGE WIRES
1 Unit Length

4 WEDGE WIRES
1 Unit Length

5 WEDGE WIRES
1 Unit Length
SLOTTED BASKETS

Some important activities of Parason LOW PULSE Screen

Cleaning Efficiency

Computer controlled manufacturing process ensures high profile accuracy.

Rigid Construction

The special profile ensures smooth and burr free basket.

Uniform Flow

Flow in profile edge creates more turbulence, improving throughput and cleaning efficiency.

<table>
<thead>
<tr>
<th>Types</th>
<th>Application based Wedge bar design.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Inside Diameter Minimum from Ø200 mm - Max.Ø2000 mm &amp; Height up to 2000 mm.</td>
</tr>
<tr>
<td>MOC</td>
<td>Support ring: 2205(HT), Wedge bar : SS316 Ti</td>
</tr>
<tr>
<td>Slot size</td>
<td>0.10 mm up to 0.60 mm.</td>
</tr>
<tr>
<td>Surface finish</td>
<td>Electro Polishing, Hard Chrome Plating (Plating thickness from 100 microns to 400 microns)</td>
</tr>
<tr>
<td>Stress relieving operation</td>
<td>Operation to counter stresses induced through welding process.</td>
</tr>
<tr>
<td>Inspection</td>
<td>We perform 100% inspection of each basket. 100% QC product</td>
</tr>
</tbody>
</table>

NATURAL FLOW

FLOW Advantages

LOW Power

FLOW Cleaning

FLOW Balancing

MORE FLOW MORE AREA
→ More stronger to last longer
→ High strength, No welding stresses
→ For high consistency operation
→ Can handle high pulsation
→ High temperature working condition
→ High differential pressure sustenance
→ More production (HC)
→ UPS series /MF series compatible

<table>
<thead>
<tr>
<th>Types</th>
<th>Application based Wedge bar design.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Inside Diameter Minimum from Ø350 mm - Maximum Ø1500 mm &amp; Height up to 1500 mm.</td>
</tr>
<tr>
<td>MOC</td>
<td>Support ring: SS316, Wedge bar : SS316</td>
</tr>
<tr>
<td>Slot size</td>
<td>0.10 mm up to 0.60 mm.</td>
</tr>
<tr>
<td>Special features</td>
<td>Higher Consistency operation, High Temperature durability, High pressure sustenance, High cleaning efficiency &amp; Higher output.</td>
</tr>
<tr>
<td>Surface finish</td>
<td>Electro Polishing, Hard Chrome Plating (Plating thickness from 100 microns to 400 microns)</td>
</tr>
<tr>
<td>Welding free basket</td>
<td>Welding Free basket</td>
</tr>
<tr>
<td>Inspection</td>
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</table>
PARASON INFLOW - CENTRIPETAL BASKETS

Your benefits
→ Large, open screening surface
→ High sticky removal efficiency
→ Less energy consumption
→ High stability by welded profile bars
→ Suitable for all centripetal screening machines

Advanced rotor and screen basket design and technology
→ High screening efficiency
→ Trouble-free operation
→ Modular design
→ Low energy consumption
→ Low maintenance costs

SCREEN ROTORS

Multi Vane Aerofoil Rotor
→ Pulsation free rotor design
→ Suitable for removing dimensionally unstable impurities
→ Special rotor design avoids string formation for low consistency hole and slot screening.
→ Computerised dynamically balanced rotor
→ Manufactured on latest CNC machines with high accuracy
TF rotor design - Technical features

→ Rotor design for high consistency
→ Better pulp fluidization
→ Higher operation consistency
→ Reduces thickening factor
→ Eliminates stringing / fiber hang ups

Results

→ Increased capacity and runnability
→ Optimized foils number position
→ Better pulse distribution over the cylinder surface
→ Helps pushing pulp toward the reject chamber
→ Helps handling change in consistency along the surface screening
→ Handles higher consistency

Resulting in

→ Improved debris removal efficiency
→ Increased capacity and runnability

Step Rotor

→ Suitable for operation with large flat shaped contaminants.
→ Adjustable speed to suit wide range of requirement.
→ Special design features avoid string formation.
→ Edges hard faced
→ Computrised dynamically balanced rotor.
SCREENING PARAMETERS

Solution Based On Operational parameters

→ Feed consistency
→ Volumetric reject rate
→ Rotor tip speed and rotor frequency
→ Passing velocity
→ Furnish parameters Like Temperature and PH
→ Reject thickening
→ Power consumption

Screening solutions for

→ Kraft pulp
→ Mixed waste
→ OCC
→ Recycled
→ DIP
→ Mechanical Pulp

Our solutions
For every application a compatible profile efficient removal of contaminants by high precision of the slot width available in economy and high end finishing series

CFD Simulations to ensure & validate the performance on field
PRODUCT QUALITY PRINCIPLE

Quality Requirements

→ General
  - No variations in CSF, fiber distribution, amount of shives
  - Good runnability at different production levels
→ GW/PGW pulp:
  - Clean pulp
  - No shives
→ TMP pulp:
  - Good fractionation
  - Development of long fiber by refining (coarse fibers)
→ CTMP pulp:
  - Clean pulp
  - High bulk

Factors affecting paper quality

→ Runnability
  - High tensile strength - good bonding ability between fibers
  - High tear strength - high fiber length and strength, bonding ability
  - Low shive content
  - Even quality
→ Stiffness:
  - High bulk

Factors affecting paper quality

Printability:

→ high internal bond strength (z-direction)
  - important with offset printing and certain converting operations such as corrugating, folding and plastic coating
→ High light scattering - newsprint, SC, LWC
→ Surface quality - low amount of minishives (linting)
→ Low amount of coarse fraction-Bauer McNett +14
→ Air permeability - important for gravure printing

Factors affecting screen behaviour

→ Rotor type and tip speed
→ Screen cylinder profile type
→ Accept capacity per screen area/slot velocity
→ Feed consistency
→ Reject rate
Technological advancements allow us to create higher quality Screen Baskets faster than before with efficient operations to become more competitive.

PARASON’s revised product portfolio offers highly engineered screening components using modern manufacturing machines & techniques to meet wide screening requirements.
MODERN WORLD CLASS MANUFACTURING SETUP

To remain competitive and to meet manufacturing challenges, Parason has implemented proven manufacturing technologies and supporting softwares.

New technologies led to innovative uses and improvements in manufacturing and end products.
PARASON BASKET UNIT

Automated welding machine

Total QC management

Ready to dispatch

CNC Machine
RE-CRHE PLATING OF SCREEN BASKETS

Extend the lifetime of your screen basket with our re-chroming and repair service. Rebuilding your existing rotors provides substantial cost saving benefits as well as the possibility of upgrading older OEM rotors to newer more productive and energy efficient designs for today's demanding screening applications. PARASON also offers screen bearing assembly and housing rebuilds.

Screen rebuilds and upgrades are available for virtually all OEM makes and models.

To regain profile geometry:

Due to operational wear in screening, the heads of profile bars frequently wear out. Rebuilding the chrome layer ensures constantly high screening quality.

PARASON team is specially trained in the analysis of screen baskets so as to be able to determine whether rechroming is necessary. If so, the old chrome layer of the screen basket is completely removed. It is especially ensured that no change in the geometry of the profile head comes. The slot width of the screen basket also remains unchanged.

Chrome is one of the materials least susceptible to wear and can also be applied repeatedly. This makes rechroming the most economical alternative for wear prevention in the case of screen baskets. Rechroming is provided for the entire screen basket portfolio from PARASON and for those of other manufacturers. The service is also specifically available for hole screen baskets.
SCREEN DATA SHEET

Company/Location: ________________________________

Prepared By: ______________________________________ Date: ________________

Screen Position: ________________________________

Screen Make and Model: ____________________________

Type of stock: ____________________________________

Goals: __________________________________________

FLOW DATA

<table>
<thead>
<tr>
<th>Feed</th>
<th>Accept</th>
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<tbody>
<tr>
<td>l/min</td>
<td>% cons</td>
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<tr>
<td>Freeness:</td>
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<tr>
<td>Pressure:</td>
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<tr>
<td>Mass Reject Rate</td>
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<tr>
<td>Thickening Factor</td>
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</table>

Reject

<table>
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<tr>
<th>l/min</th>
<th>% cons</th>
<th>bd mtpd</th>
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</thead>
<tbody>
<tr>
<td>Freeness:</td>
<td></td>
<td></td>
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</tbody>
</table>

ROTOR DATA

Rotor Type: ________________________________

Number of Foils: __________________________

Rotor Speed: ___________________________ rpm

Rotor Basket Clearance: __________________

Motor Rating: _________________ hp (or kw)

Full Load Amps: _________________________

Running Amps: _________________________

CURRENT SCREEN BASKET

Slotted: _____________________________ slot width

slot pacing

Drilled: _____________________________ hole diameter

open area

Profile Type: ____________________________

Normal Basket Life: ______________________

Coating: None, Chrome, Other ____________
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Country</th>
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<tbody>
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<td>ITC Limited</td>
<td>India</td>
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<td>Jofel Industrial, S.A.</td>
<td>Spain</td>
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<td>Nibong Tebal Paper Mills Ltd</td>
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<tr>
<td>The West Coast Paper Mills Ltd</td>
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<td>Pudumjee Pulp &amp; Paper Mills Limited</td>
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<tr>
<td>Biopapel Sab D Cv</td>
<td>Mexico</td>
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<tr>
<td>Prado Cartolinas Da Lousa, SA</td>
<td>Portugal</td>
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<td>Dentaş Kağıt Sanayi</td>
<td>Turkey</td>
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<td>Tanpack Tissues</td>
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<td>Bilt</td>
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<td>Mehali Papers Pvt Ltd</td>
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<td>ABB Group</td>
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<td>Bank Note Paper Mill</td>
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<td>Ordnance Factory Board</td>
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<td>Khanna Paper Mills</td>
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<td>Stora Enso Oyj</td>
<td>Finland</td>
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<td>Guayaquil – Ecuador</td>
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<td>Chandaria Industries</td>
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<td>Mondi</td>
<td>South Africa</td>
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<tr>
<td>Century Paper &amp; Board Mills Ltd</td>
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<td>Torraspapel, S.A.</td>
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