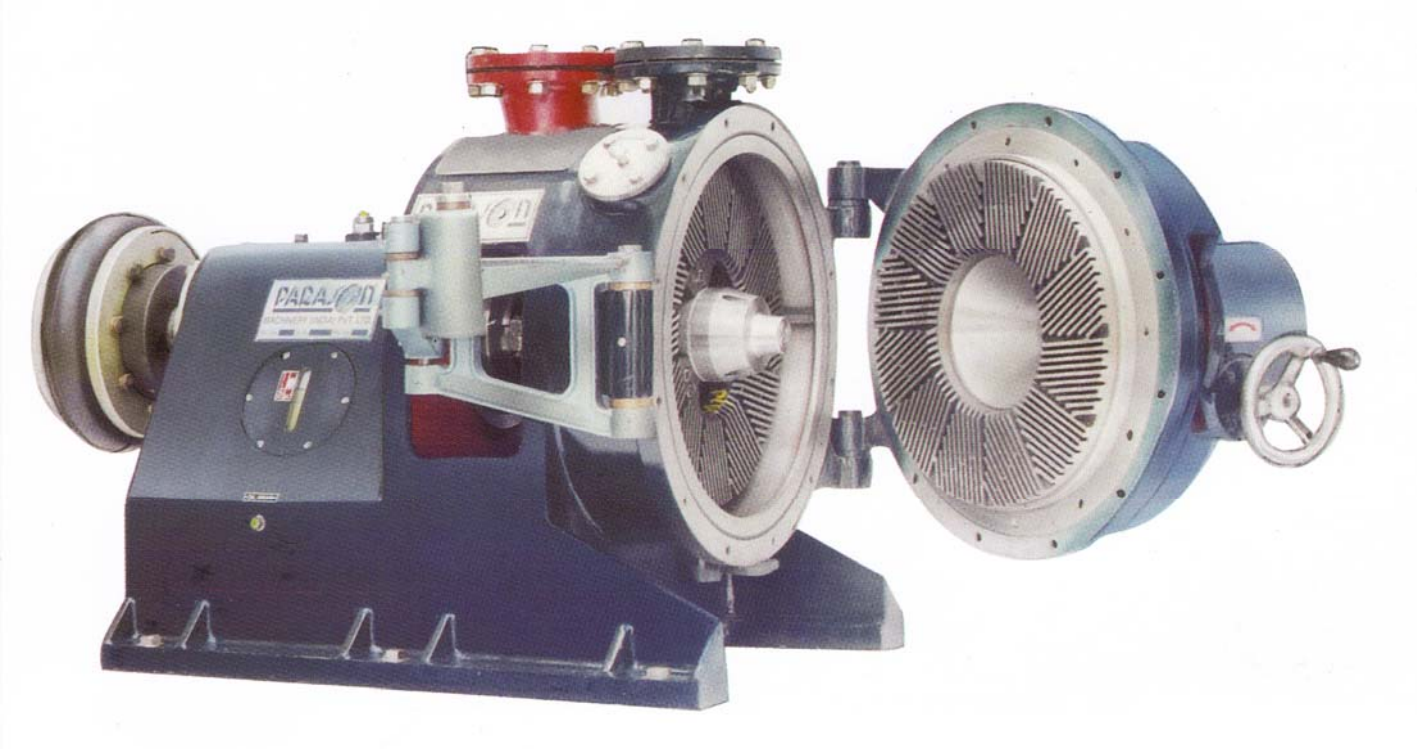
SPINNAKER CORPORATION

EQUIPMENT AND PROCESS SOLUTIONS

PARASON TWIN DISC REFINER



FEATURES – PERFORMANCE - PRICE

1523 Avondale Drive • Green Bay WI 54313

Ph. - 920.265.0941 Fax – 920.497.4714 • info@spin-corp.com

Chilled Cast Iron Plain & Temp Controlled Calendar Rolls. Headboxes, Fourdriniers, Presses, Slice & Apron Lips. Refiners, Deflakers, Plates & Tackle. Suction Rolls & Rebuilds. Cotton & Paper Filled Calendar Rolls. Reel Spools. Roll Repairing, Grinding & Rebuilding. Metal & Nylon Dryer Gears.

CONTROL POWER CONSUMPTION

Special feature to operate refiner with full auto control mechanism with SP (Set Point) feature saves power with uniform refining.

OIL BATH

This is the only system that provides positive lubrication to the bearings. The continuous feeding of oil ensures soft, smooth, trouble free & vibration less operation of the PARASON REFINER.

SPLINED SHAFT

Splined shaft technology has enabled to reduce weight of shaft assembly. PARASON TDR is manufactured with splined shaft to achieve easy movement flotation of rotor. Uniform wear of discs on both faces.

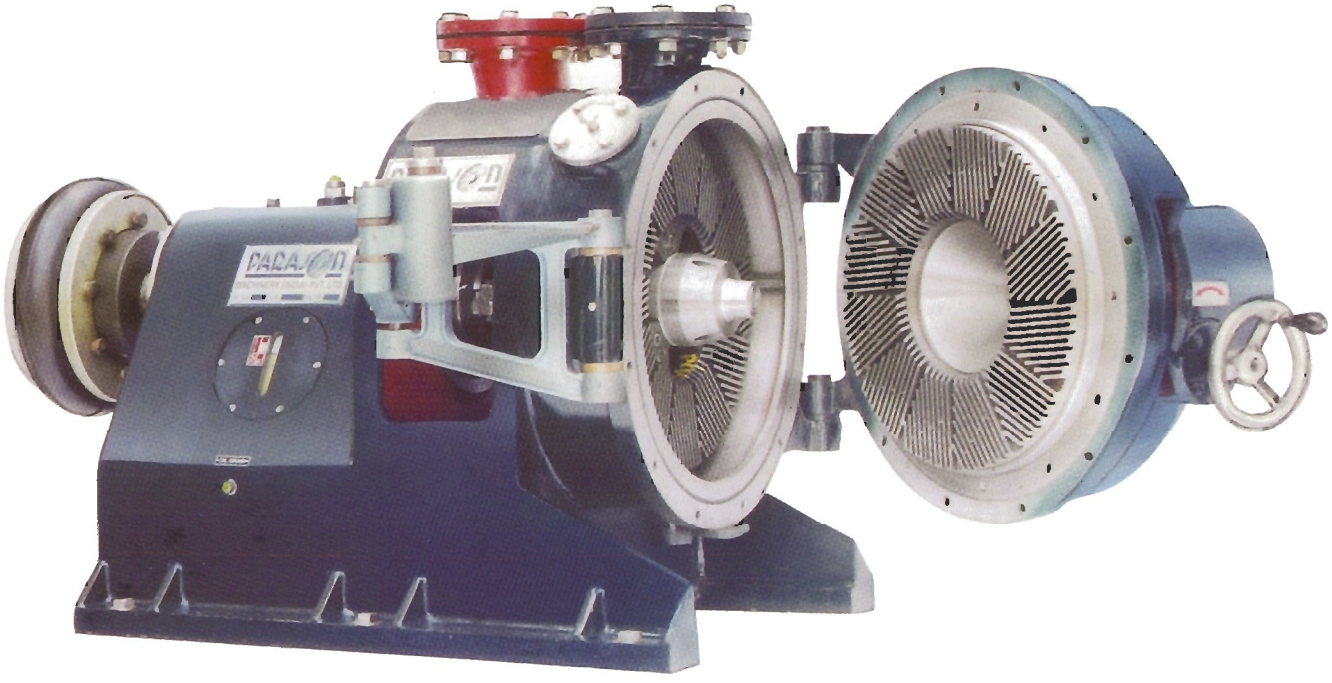
VIBROPORT ANALYSER

A unique schenck Germany analyset to analyse

- Spectrum of frequency
- Tracking
- Transfer
- Balancing
- Alignment
- Bearing vibration
- Bearing condition
- Shaft vibration
- Shaft vibration sumax
- Temperature
- Sound
- Axial position
- Process parameter
- Oscilloscope
- Ultramodern technology analysis of overall evaluation.

Exclusive features :

- **Replaces gear coupling by tyre coupling**
- **Sturdy and speedy operation**
- **Consumes less power**
- **Virtually maintenance free operation**
- **Uniform wear of plates on both faces is achieved**



TECHNICAL DESCRIPTION

REFINER BODY:
The main refiner housing is a stress relieved cast iron fabrication. All internal parts in contact with the stock and/or seal water are lined with AISI 304 stainless steel. The main refiner housing incorporates an integral mounting base with foot pads, mounting bolt holes, and leveling screws.

ROTATING SET:
The rotating set is a self-contained unit comprising the refiner shaft, two spherical roller bearings and the bearing housing. The bearing housing is closed on each end with a set of replaceable seals. The bearings are lubricated by an oil bath, with a level sight glass positioned externally at the refiner housing. The rotating set can be removed as an assembly from the front of the refiner for maintenance and/or replacement.

SPLINED SHAFT:
The refiner shaft is manufactured in forged SAE-8620 steel alloy and is machined to provide smooth axial movement of the shaft hub. The splines are case hardened

SPLINED SHAFT HUB:
The female, splined shaft hub is SAE 8620 stainless steel, precision machined to match and operate with the shaft. The splines are case hardened.

ROTATING DISC:
The rotating disc is fabricated from AISI 304 stainless steel and is machined for the mounting of the customer's segmented refiner plates. It is bolted to the shaft hub, and is located by a pin.

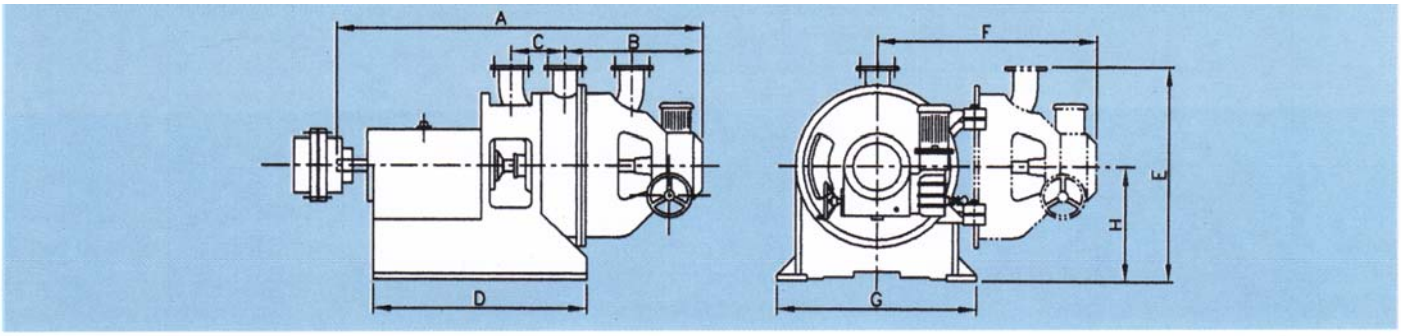
PLATE ADJUSTING MECHANISM:
The plate adjusting mechanism is driven by a two speed reversible gearmotor, and consists of a crown gear and pinion gear system that closes or opens the plates to set the refining load. When set to the lower speed, the adjusting motor allows for very precise plate positioning. The higher speed is used for fast start-up and to open the plates in case of a malfunction or emergency. The mechanism can also be operated manually by a hand wheel. The adjusting motor is pre-wired to a refiner mounted junction box for connection to the customers control panel and/or DCS.

ROTOR SUPPORT ARM:
A pivoting support arm, mounted to the refiner body opposite the refiner door hinge, is provided for support of the rotating disc during plate changes.

PACKING GLAND:
The packing gland is a stainless steel fabrication with a lantern ring.

PACKING GLAND SEALING TYPE :
The packing gland sealing type of the TDR refiner is the gasket and Lantern ring type.

FLANGES AND INTERCONNECTIONS:
The stock inlet and outlet flanges are DIN 2633 Standard with and ANSI adapter. All other connections and fasteners are metric standard.



GENERAL DIMENSIONS

Type	A MM	B MM	C MM	D MM	E MM	F MM	G MM	H MM	Disc MM
TDR - 13	1325	470	235	750	650	600	530	340	330
TDR - 17	1455	520	240	795	745	760	620	410	420
TDR - 20	1660	636	260	1000	900	930	760	500	508
TDR - 22	1700	665	250	1000	1000	1035	760	500	560
TDR - 24	1700	665	250	1000	1000	1035	760	500	610
TDR - 26	2250	800	300	1300	1250	997	935	650	660
TDR - 28	2250	800	300	1300	1250	997	935	650	711
TDR - 30	2250	800	300	1300	1250	997	935	650	762

TECHNICAL DATA

Models		*TDR-13	TDR-17	TDR-20	TDR-22	TDR-24	TDR-26	TDR-28	TDR-30
Hydraulic Capacity	Tpd	10 - 15	15 - 45	20 - 70	30 - 80	40 - 120	80 - 140	80 - 160	80 - 200
Consistency	%	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0
Motor Rating	Hp	30 - 60	100 - 150	200 - 300	300 - 350	350 - 450	500 - 550	550 - 600	600 - 650
Refiner Speed	Rpm	960	960	960	960	720	720	600	600
Stock Inlet Pressure	Kg/Cm2	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0	1.5 - 2.0
Appox. Weight	Kg	500	700	1600	2100	2500	3000	3000	3000

MANUFACTURING FEATURES

Cylinder Housing	S.G. Iron (IS-1865-1974)
Main Body	M.s. fabricated and stress relieved
Shafts	Precisely ground finished splined shafts made in SAE - 8620 forgings case carburised and hardened.
Parts contacting stock	Stainless Steel casting grade SS-304
Packing box system	Stainless Steel grade SS-304 gland sealing with cooling system
Coupling	Tyre, Geard
Bearings	Standard make
Adjustment of disc	By manual or auto-operated control system panel with dual speed gear motor.
Auto Control system	Optional