



WHIRLER

DEWATERING & SLUDGE HANDLING PLANTS & EQUIPMENTS

EQUIPMENTS > PROJECTS > SOLUTIONS



WHIRLER CENTRIFUGALS PVT LTD

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Email : info@whirlercentrifugals.com

ABOUT US...

Whirler Centrifugals Pvt Ltd, Established in 1978 by Late Mr. Rahul Patel, A Mechanical Engineer and a Gold Medalist, as a small scale manufacturing company with space of 900 Sq. Ft floor area and couple of lathes, making barrel pumps. Today, Whirler Centrifugals Pvt Ltd spans to 50+ skilled employees, 50,000 Sq.ft of production area, latest machineries and software, and has marked itself as a leader in its field.

Since establishment, **WHIRLER™** have added numerous products to its portfolio such as, vacuum pumps, water ring vacuum pumps, fluid couplings, peeler centrifuges, decanter centrifuges, rotary dryers, sludge dryers, decanters and so on.

With progress of India and its population, Whirler has shifted its focus to waste treatment technologies to provide technical, efficient and performant solution to the industry.

ENVIRONMENTAL POLICY : ISO 14001:2015

We understand ourselves as a technology company committed to environmental protection. Our responsibility for the environment is not limited to the conception of our products & services but also includes state-of-the art manufacturing technology to save the environment and conserve our resources.

QUALITY POLICY : ISO 9001:2015

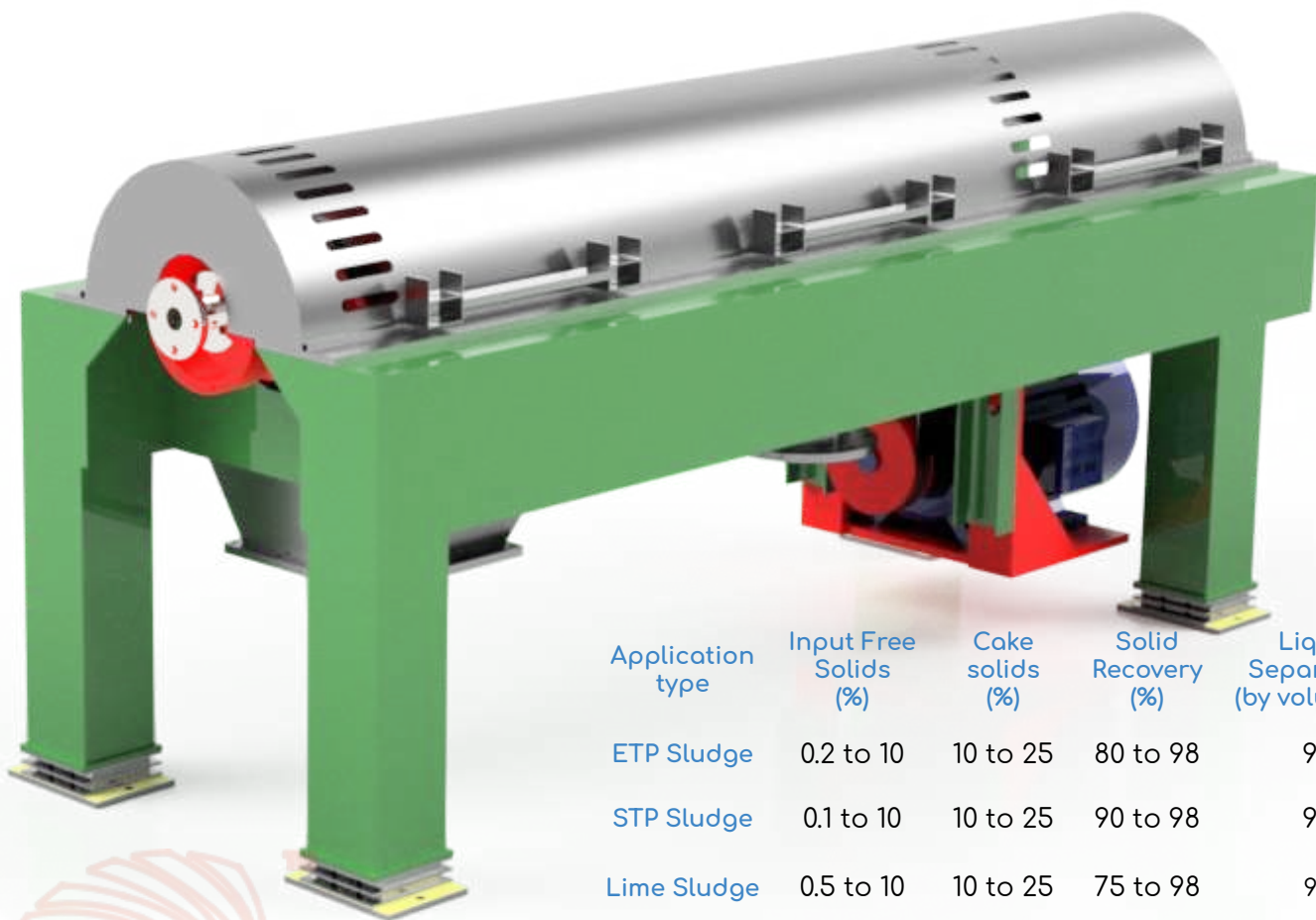
Quality determines our thinking and actions in every single subprocess. We consider quality management our driving force to increase our performance, a performance our customers expect from us and we aim to improve it continuously.

PARTNERSHIPS & PROGRESS

We have worked with Environmental Agencies & Consultants, Project Contractors, Municipal & Government Water Supply Boards to provide best in class product & solutions. Whether your need is simple equipment or Complete projects, We work with hand in hand to achieve the best economical, efficient, environment friendly and robust solution to the given problem. No problem is too small, or too big. Please write to us at info@whirlercentrifugals.com.

DO NOT PRINT SAVE ENVIRONMENT

TWO PHASE DECANTERS FOR SLUDGE DEWATERING
DEWATERING DECANTER CENTRIFUGE
0.1 M³/HOUR TO 100 M³/HOUR



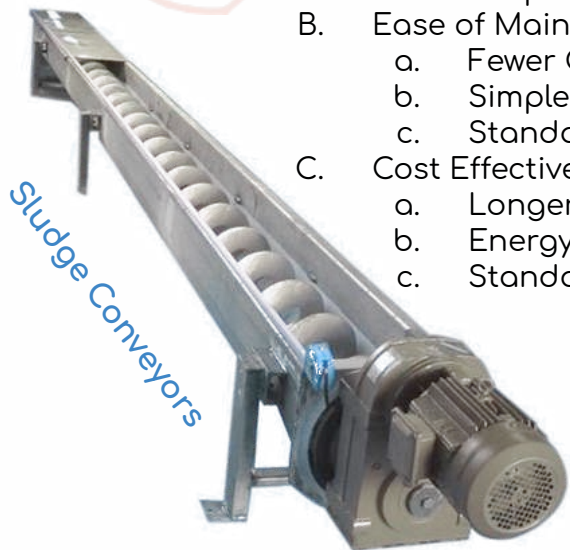
Application type	Input Free Solids (%)	Cake solids (%)	Solid Recovery (%)	Liquid Separation (by volume %)
ETP Sludge	0.2 to 10	10 to 25	80 to 98	98
STP Sludge	0.1 to 10	10 to 25	90 to 98	99
Lime Sludge	0.5 to 10	10 to 25	75 to 98	98

Your Advantages

- A. High Reliability
 - a. Robust Construction
 - b. Simple Working Principle
 - c. Simple Installation
- B. Ease of Maintenance
 - a. Fewer Components
 - b. Simple Assembly
 - c. Standard Sizes
- C. Cost Effective
 - a. Longer Operating Life
 - b. Energy Efficient
 - c. Standard Spares

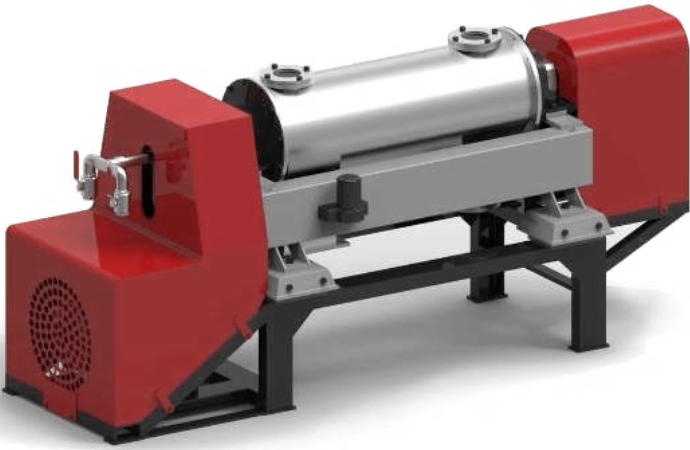
Whirler Advantages

- 1. Cost Effective Solution.
- 2. Standardised Parts.
- 3. Exact Outputs.
- 4. Energy Efficient.
- 5. Low Noise & Odor.
- 6. Low Wash Water Consumption.
- 7. Rapid Installation.
- 8. VFD Control as Standard.
- 9. Modular Wear Parts.
- 10. Prompt Services.

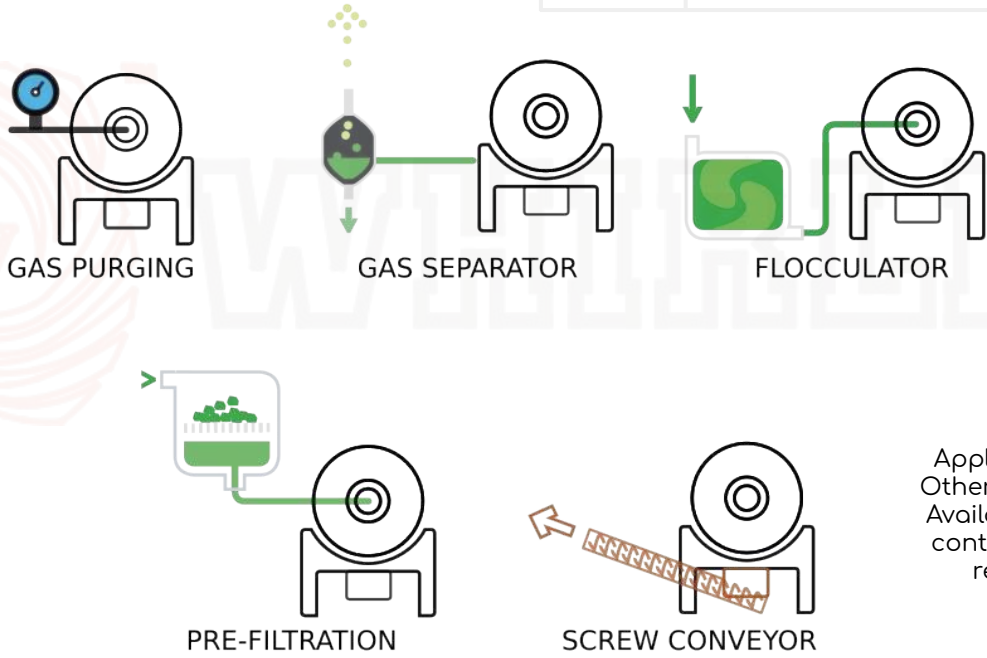


$$\text{Kg of Solid Feed Rate} = \text{Kg of Total Input Feed Rate} \times \% \text{ of Dry Solids in Input Feed}$$
$$\text{Kg output Solid} = \text{Kg of Solid Feed Rate} \times 100 / (100 - \% \text{ of Moisture})$$
$$\text{Kg solid in output liquid} = (100 - \% \text{ of Solid Capture Rate}) \times \text{Kg of Solid Feed Rate}$$

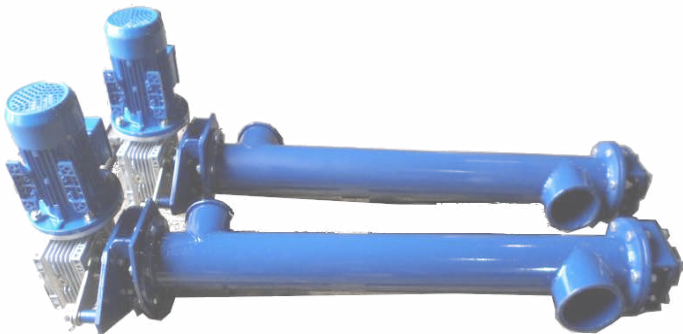
TWO PHASE DECANTERS FOR SLUDGE DEWATERING
DEWATERING DECANTER CENTRIFUGE
0.1 M³/HOUR TO 100 M³/HOUR



Accessories



Application Specific
Other Accessories are
Available on Request,
contact us with your
requirements.



Screw Conveyor Configurations

Screw Diameter (mm)	50mm to 600mm
Solid Flow Rate	50 kg/hour to 10000 kg/hour
Material of Construction	MS, SS304, SS316
Inclination (degree)	-30 Degree to +30 Degree
Motor Power (kw)	0.18kw to 10kw

$$\text{Kw of Approx. Power Usage} = (\text{Kg of Total Input Feed Rate} \times 1.1) + 5$$
$$\text{Kg of Poly Dosing} = \text{Kg of Dry Solid Feed Rate} \times (1 \text{ to } 3 \text{ Kg}) / 1000$$
$$\text{Kw of Feed Pump Power} = \text{Kg of Total Input Feed Rate} \times \text{Meter Head} \times 9.8 / (3.6 \times 10^6)$$

NON CLOGGING SCREW PRESS FOR BIO-SLUDGE DEWATERING

SELF CLEANING SCREW PRESS

0.1 M³/HOUR TO 100 M³/HOUR

WHIRLER ADVANTAGES



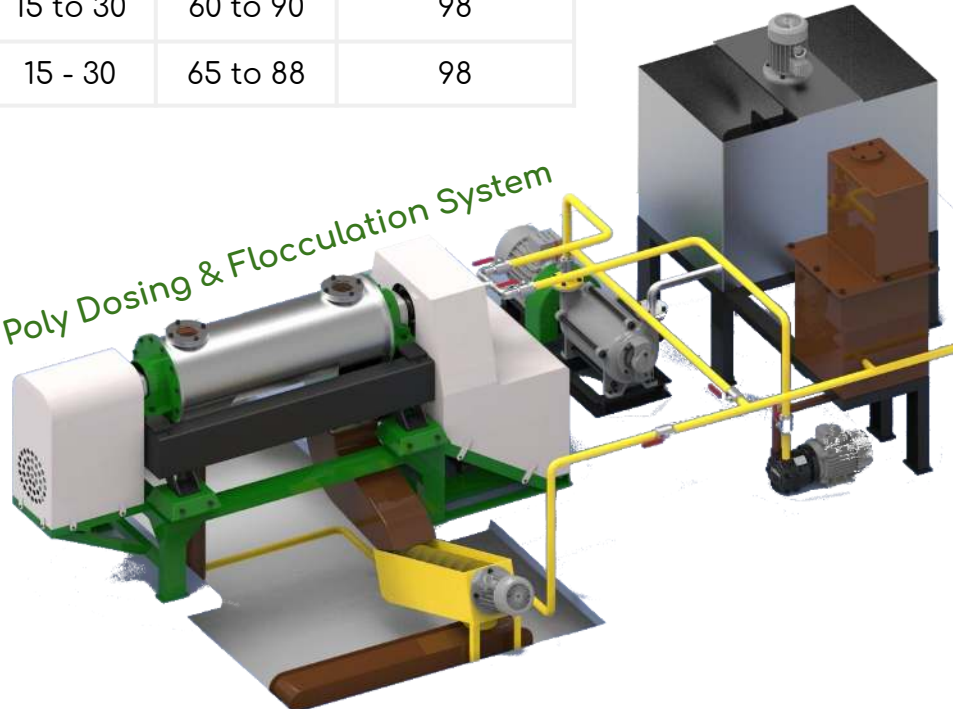
- 1. No Need For Thickeners, Sludge Storage, Or Separate Dosing Facilities.
- 2. No Need For Regular Operator Attendance.
- 3. Produces High-quality Filtrate, High Solids Recovery.
- 4. Extremely Low Power Consumption-up To 95% Less
- 5. Low Noise, Low Odor, Low Wash Water Consumption
- 6. Able To Handle Oily Sludges
- 7. Rapid Installation

Screw Diameter	100mm to 350mm
Flow Rate Capacity	1 m³/hour to 100 m³/hour
Sludge Rate Capacity	10 kg/hour to 200 kg/hour (Single Unit)
Material of Construction	SS304, SS316, SS316L, Nylon(Disks)
Gearbox	SEW, Rotomotive Make, Helical Type Gearbox

Application type	Input Free Solids (%)	Cake solids (%)	Solid Recovery (%)	Liquid Separation (by volume %)
Biogas Manure	0.2 to 15	15 to 35	60 to 90	98
STP Sludge	0.1 to 15	15 to 30	60 to 90	98
Food Waste	0.5 to 15	15 - 30	65 to 88	98



MANURE SCREW PRESS

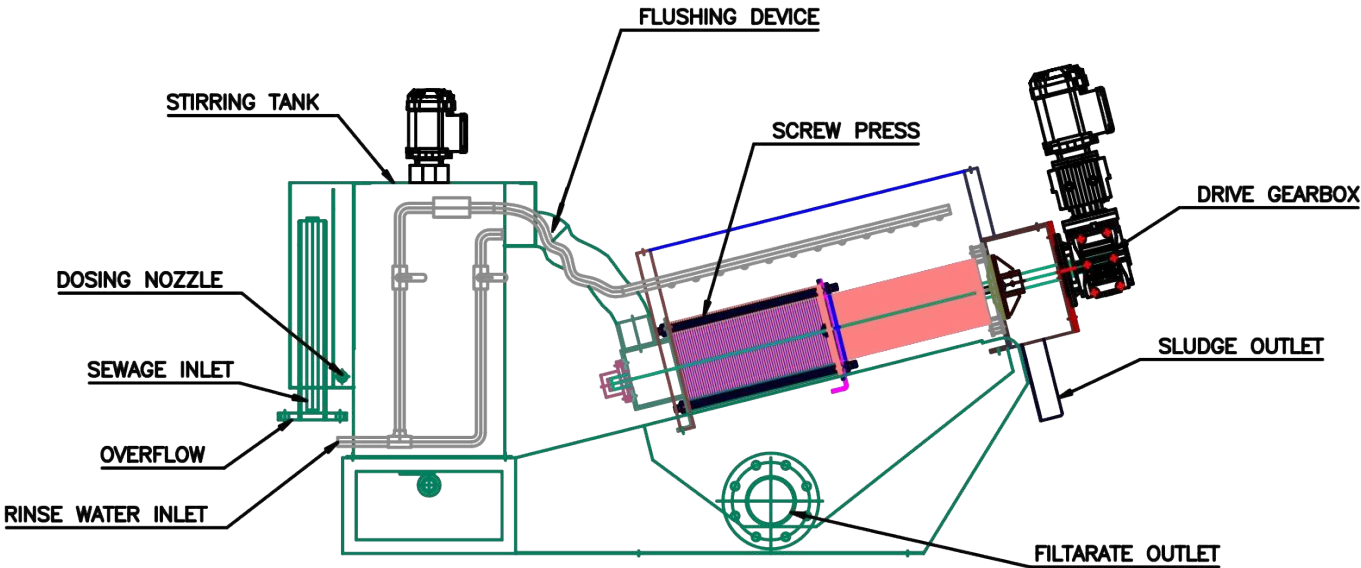


SELF CLEANING SCREW PRESS FOR BIO-SLUDGE DEWATERING

SELF CLEANING SCREW PRESS

0.1 M³/HOUR TO 100 M³/HOUR

FLOW DETAILS							
Item	Location		From	To	Unit	Remarks	
Flow Quantity	Inlet		0.5	150	m3/hr	Per unit	
Flow Solid	Inlet		0.1	10	Percentage		
Flow Solid	Outlet		15	25	Percentage		
Pressure	Inlet		0	0.5	kg/cm2	not required	
Poly dosing	Inlet		1	3	Kg / Ton of Dry Solid		
Feed Type	Input		Sewage	Effluent	Sludge Dewatering		
SPECIFICATION							
Noise Level	1M Distance		60	70	db		
Vibration Level	Mounting Point		50	70	um/s		
Voltage	Input		440	-	volt AC	Other Options on Request	
Switchgears	ABB / Siemens / Schneider / Equivalent						
Screw Motor	Standard TEFC induction motor						
Motor Control	Variable Frequency Drive						
Screw Motor	ABB / Crompton / Bharat Bijlee / Siemens						
Screw MOC	SS304	SS316	SS316L	Haste Alloys			
Gearbox	SEW / Rotomotive / Bonfiglioli / Equivalent						
Hardening	Stellite Welding						
Inclination	Inlet to Outlet		15		degree		
Spray Nozzle	Inlet Pressure		2	2.5	kg/cm2	Size	DN15



DRYER FOR SLUDGE MOISTURE REMOVAL & WEIGHT REDUCTION

WEDGE PADDLE TYPE DRYER

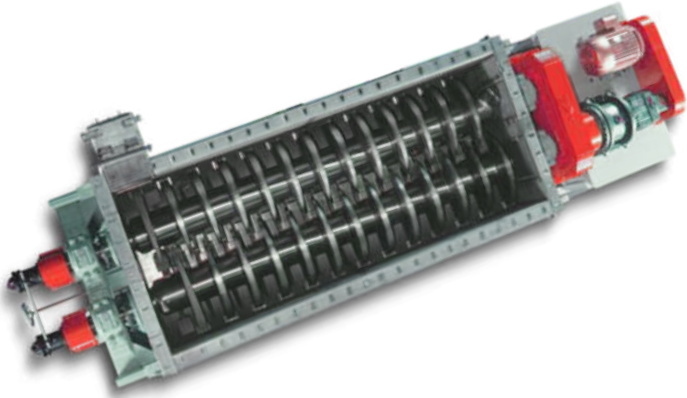
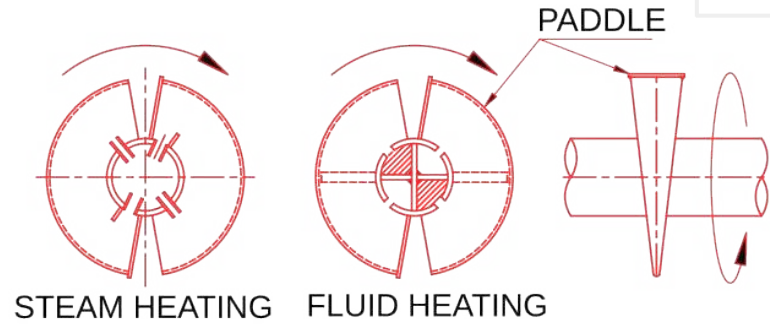
10 KG/HOUR TO 500 KG/HOUR

MODELS		
Model	Capacity Kg/Hr Output*	Paddle Dia (mm)
20PD	5 to 25	200
25PD	20 to 100	250
35PD	75 to 250	350
45PD	150 to 500	450



Configuration Options	
Material Options	MS, SS304, SS316
Heating Medium	Steam, Thermic Fluid
Energy Source	Electric, Wood, Coal, Dried Sludge, LPG, LDO
Can be Installed After	Centrifuges, Belt Press, Filter Press, Drum Screen
Optional Accessories	Output Conveyor, Scrubber, Nitrogen Purging

Typical Performance			
Application type	Input Solids Moisture	Output solids Moisture	Weight Reduction
Centrifuge Output	60-70 %	5-7 %	70-50 %
ETP Sludge	60-70 %	5-10 %	60-50 %
STP Sludge	65-75 %	5-10 %	70-85 %



$\text{Kg Liquid to Evaporate} = \text{Kg of Total Input Feed Rate} \times \% \text{ of Moisture in Input Feed}$
 $\text{Kilocalorie Required} = \text{Kg of Liquid to Evaporate} \times 590$
Fuel Calorific Values Kcal/Kg : Lpg 12000, Diesel 10000, Coal 3500, Electricity 860 Per Unit

VERTICAL BASKET BATCH TYPE CENTRIFUGES FOR SLUDGE DEWATERING

VERTICAL BASKET CENTRIFUGE

5 KG/BATCH TO 600 KG/BATCH

Basket Diameter (Inch)	12", 18", 24", 36", 48", 60"
Batch Size in Kg	5kg to 600kg
Solid Removal Options	<ol style="list-style-type: none">1. Manual Top Discharge2. Lifting Bag3. Bottom Discharge
Slurry Feed Options	<ol style="list-style-type: none">1. Gravity Feed2. Pump Feed3. Screw Feed
Material of Construction	<ol style="list-style-type: none">1. SS304, SS3162. Carbon Steel with Rubber Lining3. PTFE or ECTFE Coating
Construction Options	<ol style="list-style-type: none">1. 3 Point Suspended2. 4 Point Supported3. Wheel Mounted Portable4. GMP or non-GMP Model
Safety Features	<ol style="list-style-type: none">1. Zero Speed Interlock2. Vibration Switch3. Nitrogen Purging4. Flameproof, Explosion Proof

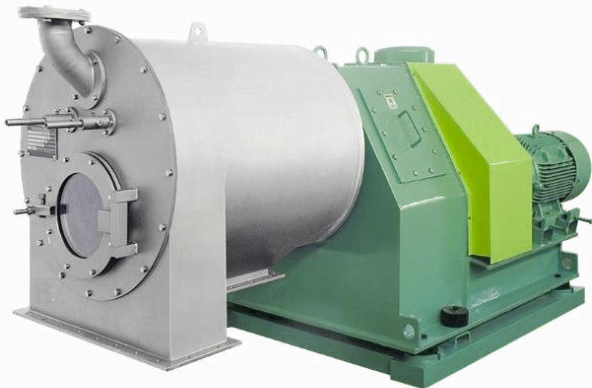


FOR CONTINUOUS DEWATERING OF SALT & CRYSTALLINE PRODUCTS

PUSHER CENTRIFUGE

100 KG/HOUR TO 25000 KG/HOUR

Basket Diameter	150mm to 1200mm
Output in Kg/Hour	150 kg/hour to 25000 kg/hour
Solid Conveying	1. Mechanical 2. Hydraulic 3. Screw
Slurry Feed Options	1. Gravity Feed 2. Pump Feed 3. Screw Feed
Safety Features	1. Zero Speed Interlock 2. Vibration Switch 3. Nitrogen Purging



Pusher Advantages

- Continuous separation
- Low energy Consumption
- Low residual moisture
- Low maintenance cost
- Compact design
- Less particle breakage
- Consistent product quality

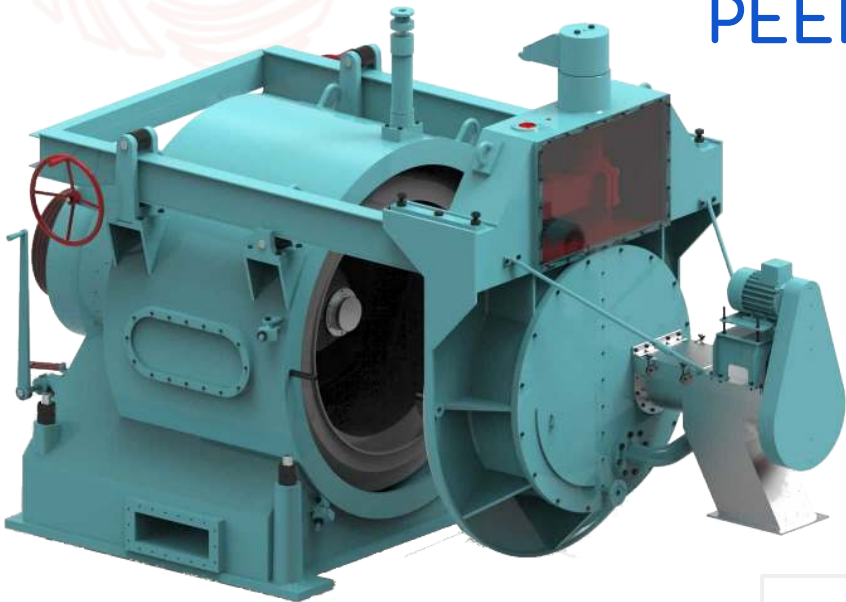
Application

- Salt Dewatering
- Evaporator Plants
- Crystalline Products
- Large Particles Dewatering
- Continuous Dewatering

FOR CONTINUOUS DEWATERING OF STARCH & BULK SOLIDS

PEELER CENTRIFUGE

100 KG/HOUR TO 10000 KG/HOUR



Peeler Advantages

- Highest throughput in Any Centrifuges for Bulk Solids
- Continuous Operation
- Rugged Builds
- Long Operating Life
- High "G" Values
- Low Vibrations

Basket Diameter	630mm to 2100mm
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Application

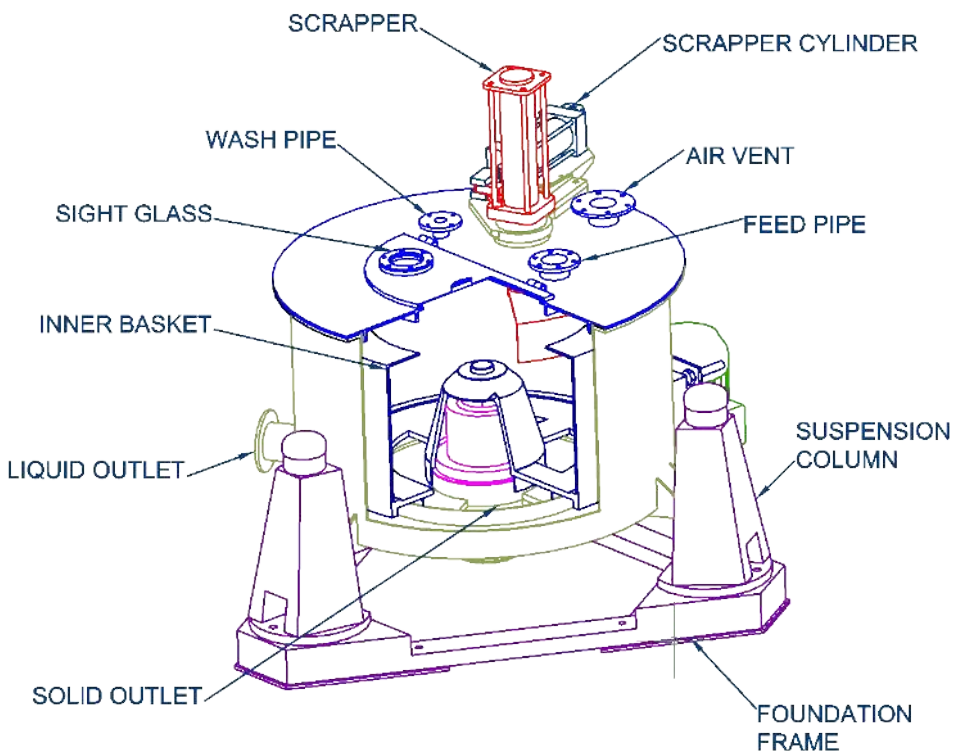
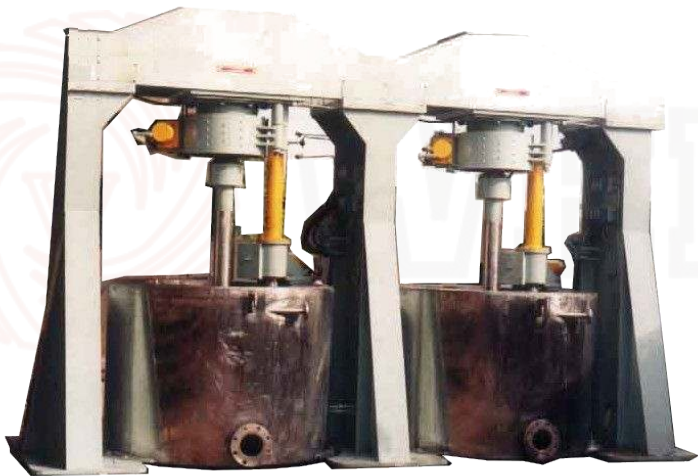
Native And Modified Starches, Artificial Sweeteners, Caffeine, Bulk Chemicals, Petrochemical Intermediates, Fertilizers, Chlorides, Sulfates, Calcium Compounds, Sodium Compounds, Fine Chemicals, Bleaching Agents, Surfactants, Herbicides, Pesticides, Catalysts, Dyestuffs, Plastics/Related Products, Abs, Resins, Pharmaceuticals/Related Products, Apis, Antibiotics

FOR BATCH TYPE SLUDGE DEWATERING

BOTTOM DISCHARGE CENTRIFUGE

50 KG/BATCH TO 600 KG/BATCH

Basket Diameter	24 Inch to 60 Inch
Solid Peeling	<ol style="list-style-type: none">1. Pneumatic Scraper2. Hydraulic Scraper3. Manual Scraper
Slurry Feed Options	<ol style="list-style-type: none">1. Gravity Feed2. Pump Feed3. Screw Feed
Safety Features	<ol style="list-style-type: none">1. Zero Speed Interlock2. Vibration Switch3. Nitrogen Purging



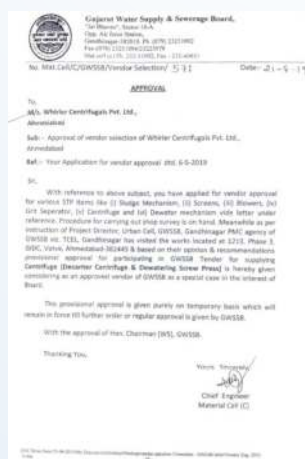
Advantages

- Non Human Contact Solid Removal
- Low Cost Dewatering
- High Solid Capture Rate
- Simple Installation
- Compact design
- Low Moisture Content in Output

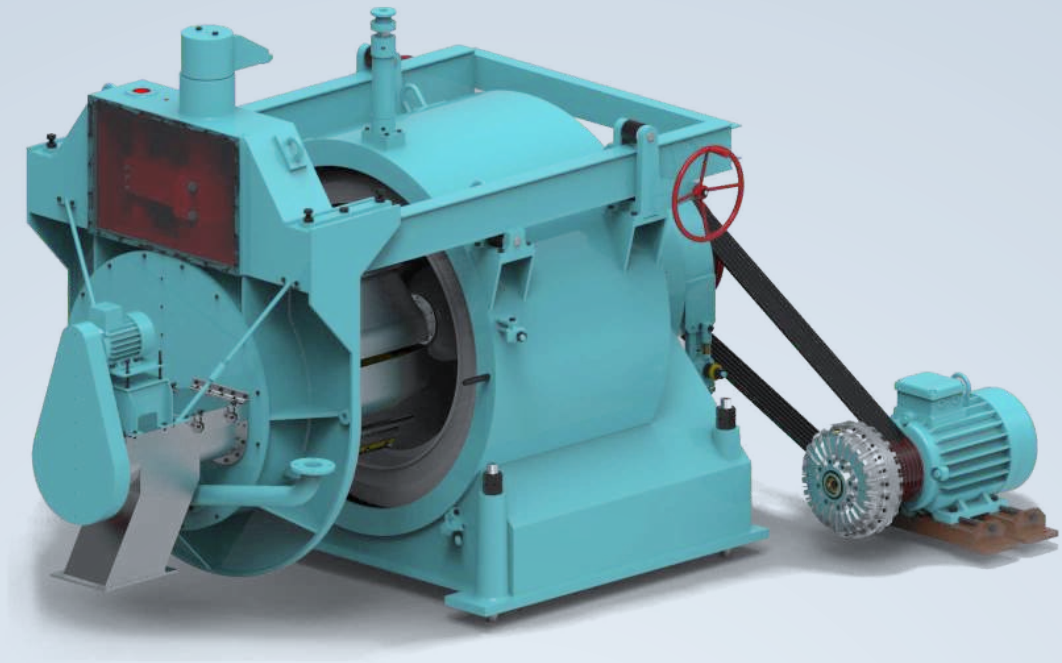
SOME OF OUR ESTEEMED CLIENTS



SOME OF OUR CERTIFICATES



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