



Anhui PUYUAN Centrifuge Technology

Executive Summary

⚙️ Purpose

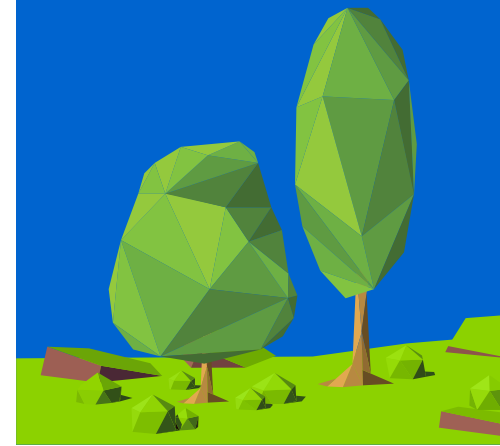
- ✓ Provide a background to this investment opportunity;
- ✓ Provide information on the centrifuge technology (the future for enrichment);
- ✓ Specify and outline the purpose of this proposal to serve as technological-advancement option for current needs;
- ✓ Specify the procedures and expected joint-interests.

⚙️ Objectives

- ✓ To propose the state-of-art environmental-friendly technology for continuous commercial sustainability and manage the environment risk;
- ✓ To fit in the current Environmental Master Policy within Negara Brunei Darussalam

⚙️ Current Pain-points

- ✓ Environmental-friendly high-end technology is relatively expensive and hardly to match the current needs



Executive Summary

⚙️ Key Requirements

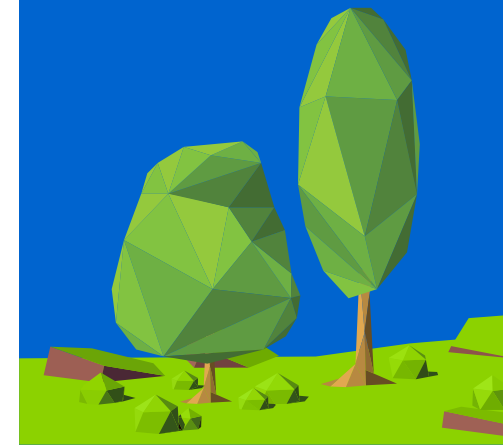
- ✓ Explore opportunity from existing agriculture, municipal (water-and wastewater treatment plants), industrial, power generation plants, petroleum, mining, chemical, pharmaceutical, etc.

⚙️ Proponent Consortia

- ✓ NPS Engineering (Malaysia) Sdn Bhd [SEA Authorized Reseller-Distributor]
- ✓ Anhui Puyuan Separation Machinery Manufacturing Co. Ltd [Principal]

⚙️ Contact Points

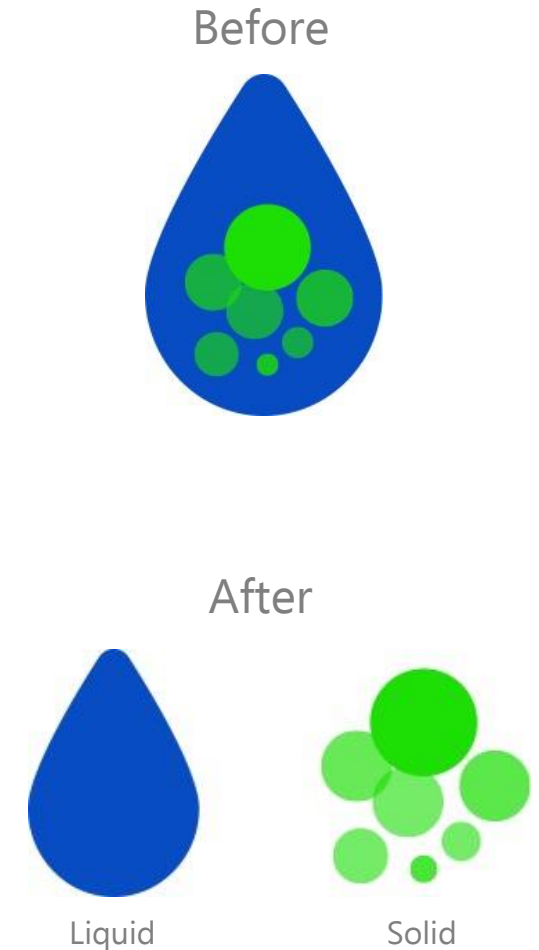
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Executive Summary


⚙️ Technical Principle Overview

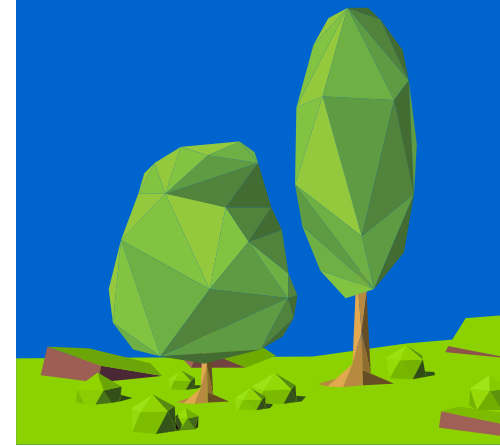
- ✓ To separate out solids whose density is bigger than liquid from mixed fluid;
- ✓ After the mixture fluid enters the high-speed rotating bowl of centrifuge via feed inlet, solids with larger density forced by centrifugal acceleration would rapidly deposit on inner wall of the bowl, then spiral pusher pushes deposited solids to taper end of the bowl, and discharges them out of centrifuge from residue outlet. Meanwhile, fluid with smaller density forms a liquid ring layer and discharges from bowl through overflow port.
- ✓ The bowl and spiral pusher run at a high speed simultaneously, deposited solids on the wall of bowl could be conveyed to residue outlet by spiral pusher due to speed discrepancy. This process carry out continuously.



Executive Summary

⚙️ Technology Patent copyright and Certifications

No.	Description	Attachments
1.	Certificate of Honor	 Certificates of Honor.docx
2.	Product Certification	
3.	Patent Certification	



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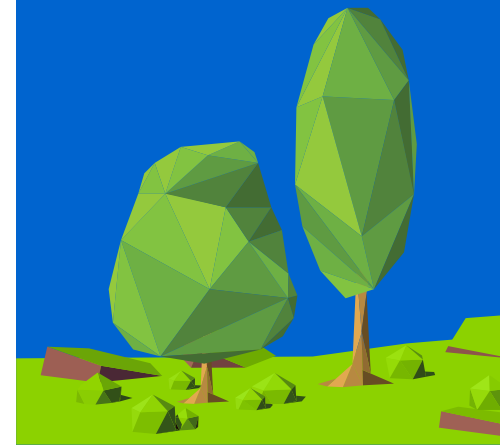
⚙️ **Proposal of Centrifuge Technology**

1) Horizontal Solid-bowl Scroll-discharge Decanter Centrifuge

- LWD Series – double-bowl (fluid pre-acceleration) horizontal decanter centrifuge
- LWT Series – fluid pressurization horizontal centrifuge
- LWTF Series – explosion-proof horizontal centrifuge
- LWTZ Series – pressure suction drain horizontal spiral automatic scrolling centrifuge

2) Filtering Centrifuge

- PGZ Series – filtering centrifuge
- PGZQ Series – automatic centrifuge
- PGZW Series – automatic centrifuge
- PLBF Series – sanitary filtering centrifugal



LWD Series Centrifuge

(LW)D Series Horizontal Solid-bowl Scroll-discharge Decanter Centrifuge



Separation technique

Feeding → Material pre-acceleration → Gravity separation → Sediment discharge
→ Liquid discharge

Separation effect factors

Centrifuging factor, length to diameter ratio of cavity, pre-acceleration and fluid homeostasis

Field control

Bowl rotating speed, rotating speed difference between spiral pusher and bowl, depth of liquid pool

Advantages

Suitable for suspended and viscous materials, clearer liquid, drier sediment and smooth sediment discharge, deceleration separation extends the service life of equipment, energy-saving.

Application

Non-volatile, non-toxic, inflammable and non-explosive materials, occasions with strict requirements to solids and liquids after separation, special materials with a variety of physical properties in mixture



LWT Series Centrifuge

(LW)T Horizontal Solid-bowl Scroll-discharge Decanter Centrifuge



Separation technique

Feeding → Material pre-acceleration → Siphon feeding → Fluid pressurization → Separation → Fluid stabilizer → Sediment discharge → Liquid discharge

Separation effect factors

Centrifuging factor, length to diameter ratio of cavity, air negative pressure, fluid pressure and fluid homeostasis

Field control

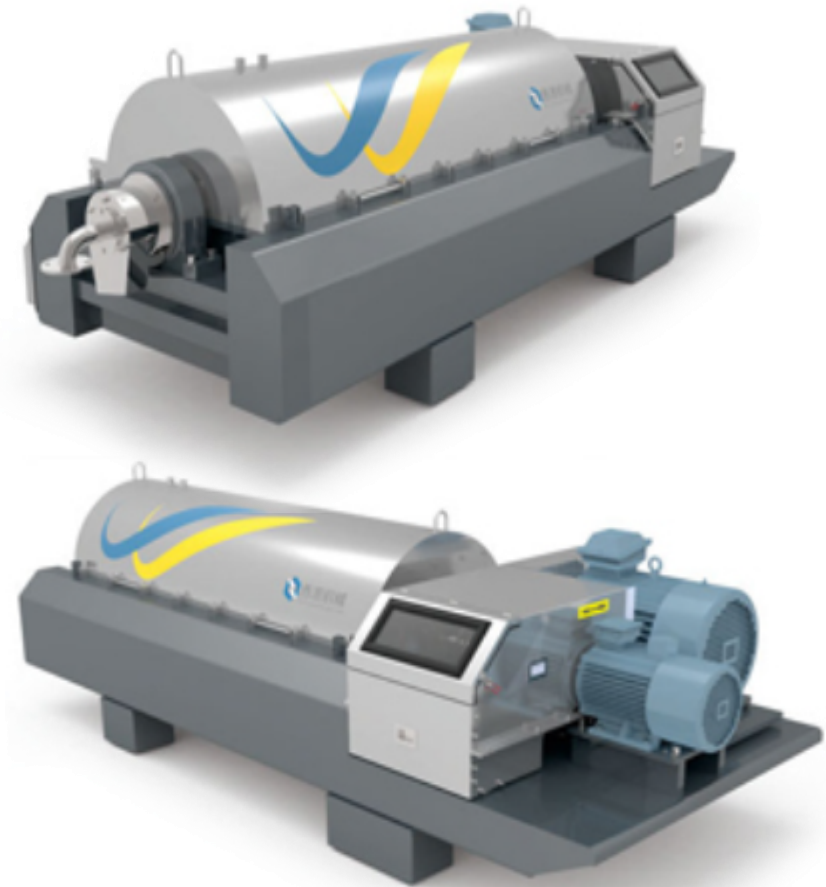
Bowl rotating speed, rotating speed difference between spiral pusher and bowl

Advantages

Suitable for suspended and viscous materials, larger processing capacity, clearer liquid, drier sediment and smooth sediment discharge, deceleration extends the service life of equipment, energy-saving.

Application

Non-volatile, non-toxic, inflammable and non-explosive materials, larger output, occasions with strict requirements to solids and liquids after separation, special materials with a variety of physical properties in mixture



LWTF Series Centrifuge

(LW)TF Horizontal Solid-bowl Scroll-discharge Decanter Centrifuge



Separation technique

Feeding → Nitrogen protection → Material acceleration → Siphon feeding → Fluid pressure → Separation → Fluid stabilizer → Sediment discharge → Pressurized liquid discharged with self-priming pump

Separation effect factors

Centrifuging factor, length to diameter ratio of cavity, pre-acceleration, fluid pressure and fluid homeostasis

Field control:

Bowl rotating speed, rotating speed difference between spiral pusher and bowl

Advantages:

Suitable for suspended and viscous materials, larger processing capacity, clearer liquid, drier sediment and smooth sediment discharge, deceleration extends the service life of equipment, energy-saving.

Application:

Flammable and explosive materials, larger output, occasions with strict requirements to solids and liquids after separation, special materials with a variety of physical properties in mixture



LWTZ Series Centrifuge

(LW)TZ Horizontal Solid-bowl Scroll-discharge Decanter Centrifuge



Separation technique

Feeding → Nitrogen protection → Material acceleration → Siphon feeding → Fluid pressure → Separation → Fluid stabilizer → Sediment discharge → Pressurized liquid discharged with self-priming pump

Separation effect factors

Centrifuging factor, length to diameter ratio of cavity, pre-acceleration and online remote of pressurized liquid discharge

Field control

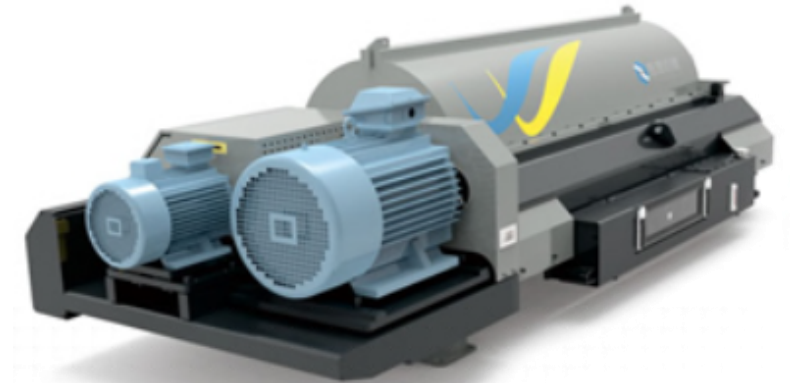
Bowl rotating speed, rotating speed difference between spiral pusher and bowl, depth of liquid pool

Advantages

Suitable for suspended and viscous materials, larger processing capacity, clearer liquid, drier sediment and smooth sediment discharge, deceleration extends the service life of equipment, energy-saving.

Application

Non-volatile, non-toxic, inflammable and non-explosive materials, larger output, occasions with strict requirements to solids and liquids after separation, special materials with a variety of physical properties in mixture



PGZ Series Centrifuge

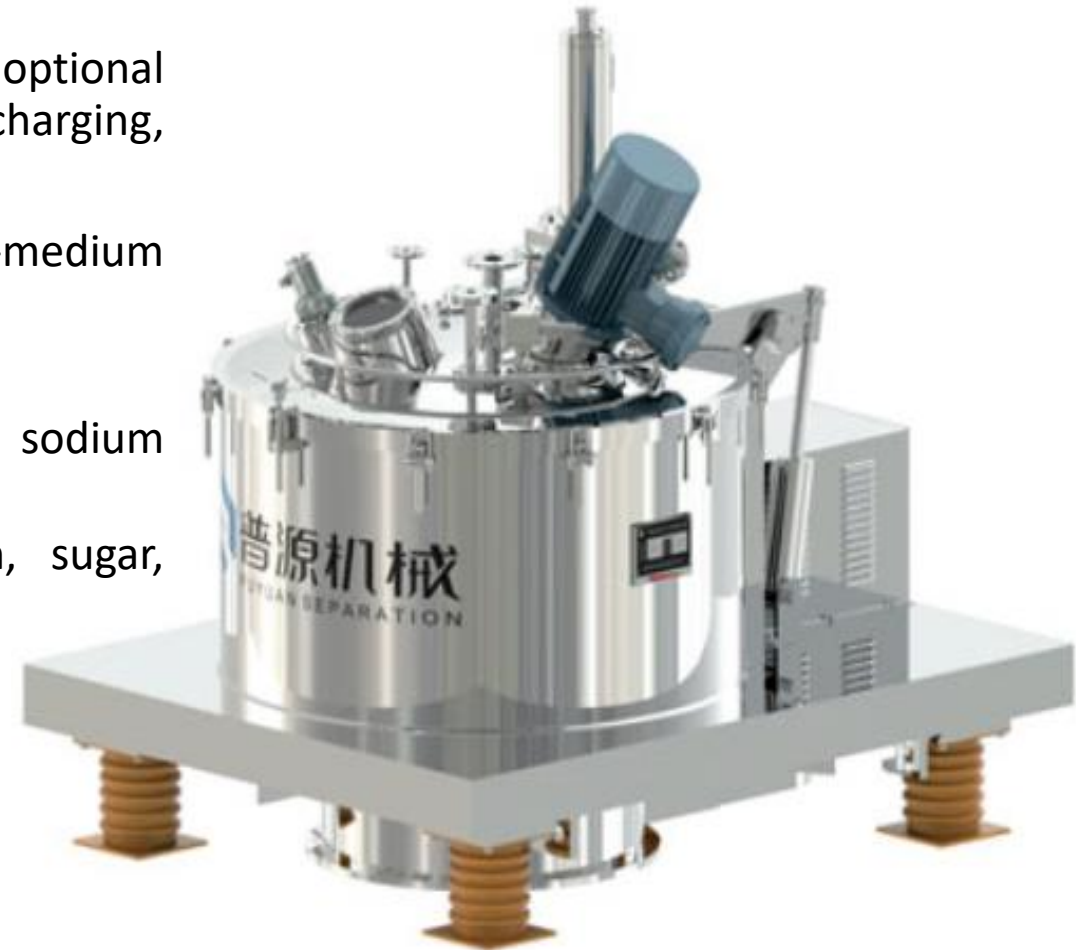
PGZ series Automatic scraper bottom discharge centrifuge



- Fully automated separation machinery with a variety of optional configurations. Production process (feeding, separating, discharging, cleaning) all being controlled in one working cycle.
- Used for solid-liquid separation of suspension containing fine-to-medium particles, and solid-liquid separation of fibrous materials.

Widely applied to

- Chemical industry (gypsum, sulfuric acid, copper sulphate, sodium chloride, borax dye resin, agricultural pesticides and agent);
- Food industry (salt, gourmet powder, food additive, starch, sugar, condiments);
- Pharmaceutical industry (for instance antibiotics, vitamins);
- Minerals industry;
- Environmental protection industry.



PGZQ Series Centrifuge

PGZQ series Automatic self-cleaning
bottom discharge centrifuge



- Fully automated separation machinery and working intermittently. It can be automatically operated for complete feeding, separating, discharging, and remove residual filter cake from the filter bag which attach with.
- It suits for separation of solid suspension including tiny and medium particles, as well as for separation of fibrous material.
- Widely used for chemical industry, food industry, pharmaceutical industry, mining industry and environmental protection industry.



PGZW Series Centrifuge

PGZW1250N Automatic self-cleaning
centrifuge for MSG



- Is a kind of vertical, small scraper discharging and intermittently working filtering centrifuge, which can achieve cyclical operation in both manually and automatically.
- Its originally designed to meet the high cleanliness requirements of separating finished MSG, it is one of the key equipment in the MSG industry and meets the high standard hygiene GMP requirements.
- It also effectively protect the separated materials from pollution, and is widely used on various occasions that require high cleanliness separated materials.



PLBF Series Centrifuge

LBF Series direct-connected driving
shell-reversible centrifuge



- Is a kind of sanitary filtering centrifugal separating machine, which is widely used in the separation of a variety of solid liquid mixtures, like pharmaceutical, food-processing, fine chemical, and other industries.
- Its has the significant features in high-quality manufacturing process, high corrosion resistance, meeting the requirements of high cleanliness



Back up Information

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No.	Description	URL
1.	Anhui Puyuan Separation Machinery Manufacturing Co., Ltd. company portfolio	http://www.ahpyflj.com

