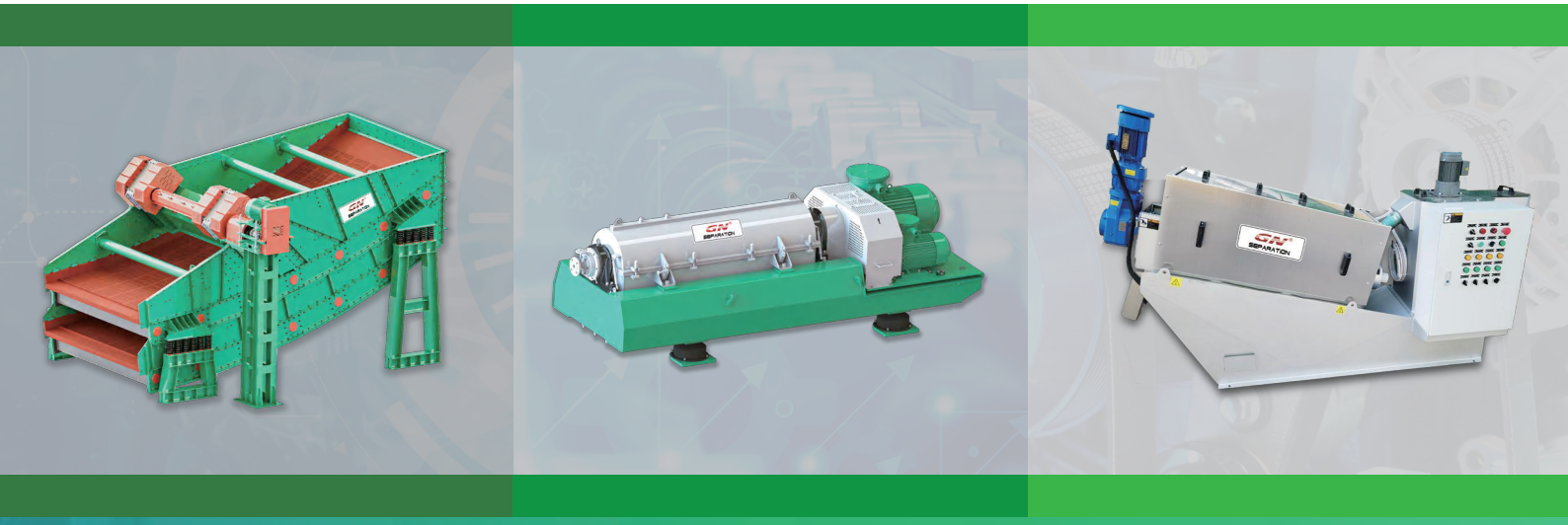
GN SEPARATION



Separation Equipment Manufacturer

GN Separation Equipment Co.,Ltd

V20260306

Content

Part 1: Company Profile

The Company

GN Separation Equipment Co., Ltd (GN Separation), a subsidiary of Hebei GN Solids Control Co,Ltd., focus on separation equipment for 17 years since 2008. Our product range includes centrifuges, vibrating screens, dewatering screw presses, and pumps.

With three factories covering 110,000 square meters in China and branch offices providing services in the United States and Australia, GN is a National Key Little Giant Enterprise. Since 2010, we have held the American API Quality Management System Certification for 15 consecutive years and maintained ISO9001, ISO14001, and ISO45001 certifications from the China Classification Society. Our equipment is certified by EU CE, ATEX, Russia EAC, and International IECEx. Utilizing an ERP Cloud + CRM Cloud management system, we ensure digital control and quality traceability throughout production. Approximately 70% of our products are exported to over 70 countries worldwide.

GN Separation Equipment Advantages

Rich Experience:

Since 2008, GN has accumulated over **18 years** of expertise in researching, developing, and manufacturing separation equipment. GN is recognized as a National Key Little Giant Company in 2024.

Robust Manufacturing Capabilities:

Occupying a total area of 110,000 square meters, GN Separation boasts three primary manufacturing facilities equipped with cutting-edge machinery, including Automatic Welding Robot Workstations, Large Laser Cutting Machines, Advanced CNC Machining Centers, and Large Automatic Injection Molding Machines for shaker screens.

Well-established Management System:

GN has obtained certifications for ISO 9001, ISO 14001, ISO 45001, as well as the American API Q1 Quality Management System. Additionally, GN's products have secured EU CE and ATEX certifications. GN utilizes an ERP Cloud+CRM Cloud management system.

Extensive Market Share:

Our products are exported to more than 70 countries and regions globally, gaining wide recognition from both domestic and international customers. Furthermore, we have established branches in Houston, USA, and Brisbane, Australia.

GN Tangshan Factory

1

Area of 80,000 ㎡
(860,000SF)

2

Office Size of 10,000 ㎡
(107,000SF)

3

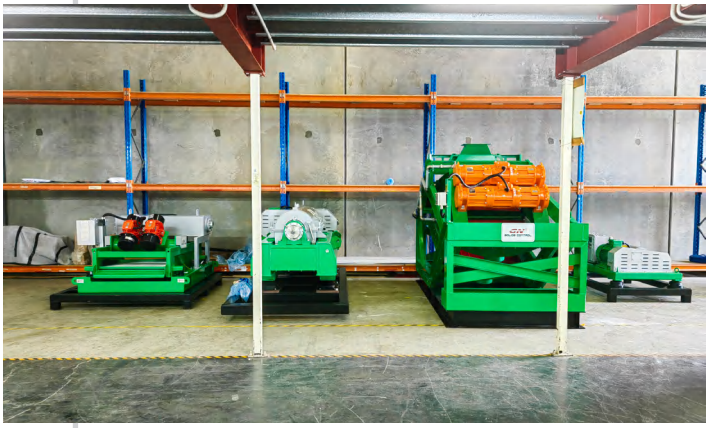
Available for
Separation
Equipment and
Package System

GN USA Facility

GN Solids America is a branch company of GN Solids Control China. GN Solids America is located in Houston, Texas. With our professional team and workshop and warehouse in Houston, TX, we can offer better service to the North and South America customers. In our Houston office, we have employees speaking Chinese, English and Spanish which help us to communicate with customers more smoothly.

GN Solids Australia

GN Solids Control Australia branch: GN Solids Australia is the first sub-company of a Chinese solid control equipment manufacturer registered within Australia domestically. The company is located in Brisbane, Australia. It has the functions of equipment and accessory storage, equipment maintenance and assembly, and office. GN Australia provides equipment sales and leasing businesses.



GN Factory

Blanking Workshop

Large CNC Laser Pipe Cutting Machine

Large CNC Laser Plate Cutting Machine

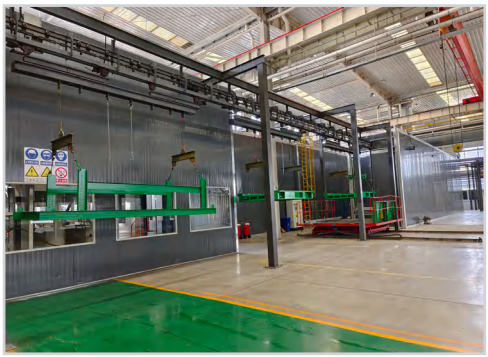
Welding Workshop

Robot Welding Production Lines for Solids Control Equipment

CNC Machining Workshop

Centrifuge and Pumps Production by CNC lathe, CNC machining center and Balance Machine etc.

Coating Workshop



Include Sand and Ball Blasting Machine, Painting and Powder Coating Production Line (Control Ambient Air for High quality)

Assembly Shop

Available for Individual Equipment or Package Mud System Assembly

GN Langfang Factory

Langfang No.1 Factory

Langfang No.2 Factory

GN Certificates

- ISO9001 Quality Management Certificate
- ISO14001 Environment Management Certificate
- ISO45001 HSE Certificate
- America API Q1 Certificate
- International Trademark Certificate
- Europe CE Certificate
- China Explosion Proof Certificate
- International IECEX certificate
- Europe ATEX certificate
- National Small Giant Enterprise


中国船级社质量认证有限公司
CHINA CLASSIFICATION SOCIETY CERTIFICATION CO., LTD.

质量管理体系认证证书
QUALITY MANAGEMENT SYSTEM CERTIFICATE

编号：No.00524O6829R1M

河北冠能石油机械制造有限公司

This is to certify that the Quality Management System (QMS) of

HEBEI GN SOLIDS CONTROL CO., LTD.

This certificate is valid until: 05 January 2028.

Issued on: 31 December 2024.

Issued by: Tian Wei


中国船级社质量认证有限公司
CHINA CLASSIFICATION SOCIETY CERTIFICATION CO., LTD.

环境管理体系认证证书
ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

编号：No.00525E6099R4M

河北冠能石油机械制造有限公司

This is to certify that the Environmental Management System (EMS) of

HEBEI GN SOLIDS CONTROL CO., LTD.

This certificate is valid until: 27 December 2028.

Issued on: 12 December 2025.

Issued by: Tian Wei


中国船级社质量认证有限公司
CHINA CLASSIFICATION SOCIETY CERTIFICATION CO., LTD.

职业健康安全管理体系认证证书
OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

编号：No.00525S6100R4M

河北冠能石油机械制造有限公司

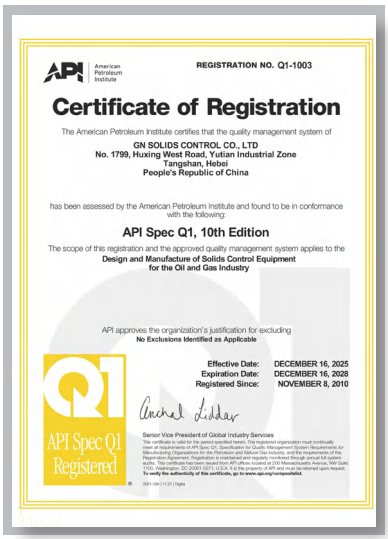
This is to certify that the Occupational Health and Safety Management System (OHSMS) of

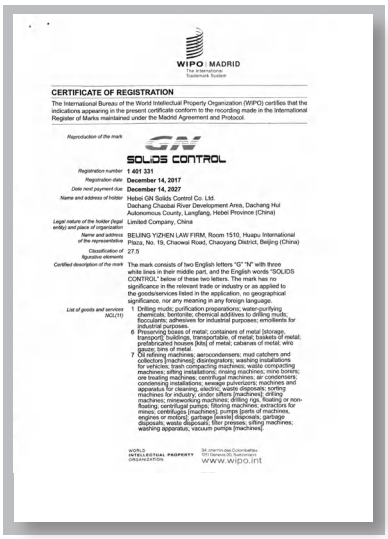
HEBEI GN SOLIDS CONTROL CO., LTD.

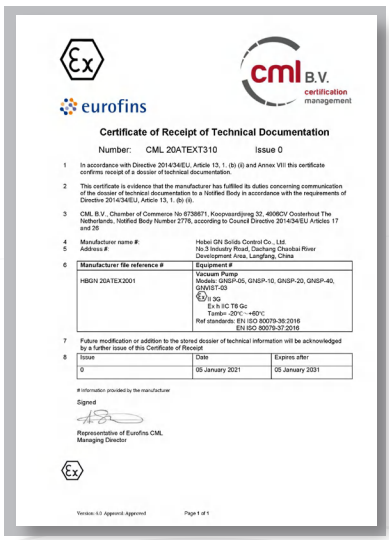
This certificate is valid until: 27 December 2028.

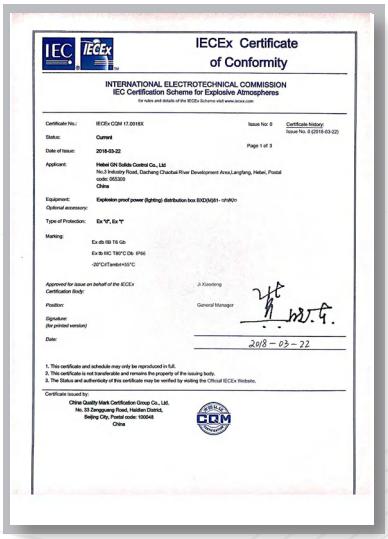
Issued on: 12 December 2025.

Issued by: Tian Wei









National Small Giant Enterprise

Part 2: Decanter Centrifuge

2.1 GN Industry Decanter Centrifuge

GN designs and manufactures different size of decanter centrifuge for industry separation. Solid bowl decanter centrifuges have been operating according to the same basic principle since the 19th Century. GN centrifuge production line is from 9inch (220mm) bowl to 30inch (760mm) bowl, with bowl length and diameter ratio up to 4.2, and the adjustable G force is up to 3000G to meet different industry separation applications

GN designs specific centrifuges according to specific separation tasks and the use of resilient, high-quality materials have improved the performance of the centrifuges.

Moreover, GN owns a branch for design PLC and electrical control system; this gives GN advantages in electrical components for measuring and control technology. The performance and availability of the decanter centrifuges or three-phase centrifuges are significantly improved by the control system.

Main Function of GN Industry Centrifuges

- Dewatering sludge / mud and suspensions
- Thickening sludge or mud
- Clarifying different type liquids
- Separating 3-phase mixtures, i.e. two immiscible fluid phases and a solid phase
- Classifying solids in a wet suspension by grain size
- Separation of solids according to various densities

Different Series of GN Centrifuge Features

Series	Beach Angle	Type	Features	Main Application
T Series	8.5°	Dewatering Type	Dewatering Decanters are continuously operating for maximum dewatering requirements	Drilling mud, environmental protection sewage, oily sludge, chip fluid, sand washing water, mineral water, soda white mud, salt mud dewatering, etc.
Y Series	15°	Separation Type	Separation of two phase material and also fit for material with viscosity	Mineral oil, chemical viscous materials, fruit juice, coffee, tea, wine, soybean milk, rubber treatment in leather factories, biodiesel, starch and so on.
C Series	20°	Clarifying Type	Clarifying decanters are designed for the continuous separation of suspensions into solids and clarified liquid	Edible oil, Protein, Cheese, Casein ,Lactose, Beverage, Fish By-Products ,oil and water clarifying etc.

2.2 GN Centrifuge VFD Control Panel

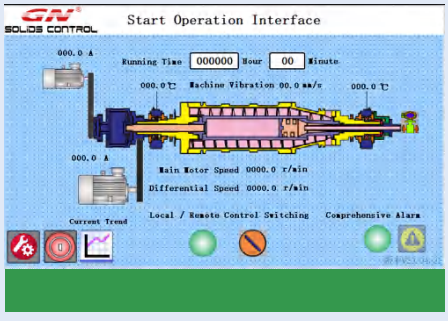
GN VFD decanter centrifuge adopts stainless steel frequency conversion control cabinet, which meets the protection level above IP55. Through high-end frequency converter and PLC, as well as GN many years accumulated intelligent control technology of decanter centrifuge. This makes GN decanter centrifuge to have optimal performance, convenient maintenance, and safe and reliable operation. According to the application conditions, GN can also provide domestic and international standard explosion-proof VFD control cabinets.

Stainless Steel VFD Control Panel

- VFD from Yaskawa, ABB or Siemens series.
- PLC and touch screen from Siemens or other famous brands.
- Circuit breakers and other components from Schneider or other famous.
- Common DC (Direct Current) bus energy feedback braking is adopted to achieve the purpose of energy saving

Stainless Steel VFD Control Panel

- Excellent corrosion resistance and long service life.
- Minimum IP55 protection level meets outdoor use demand.
- The positive pressurized explosion-proof control panel can be made according to requirement.



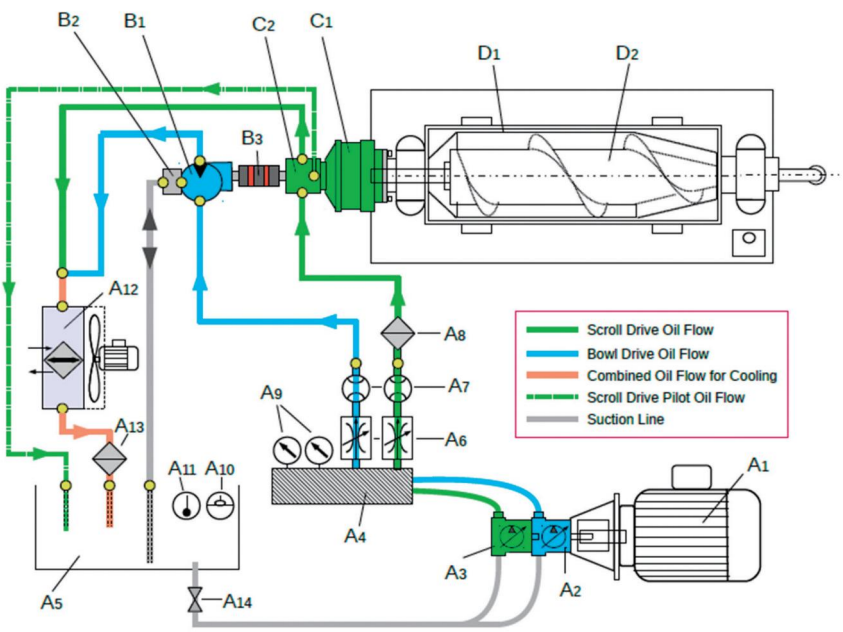
Automation and intelligence

- The Constant Torque control system can be realized according to the demand.
- The complete monitoring and alarm system can meet the requirements of bearing temperature rise protection, vibration monitoring and protection, overload protection, etc.
- Control and display bowl speed and differential speed. Monitor the current of main motor and back motor.
- Automatic flushing and dosing control can be equipped according to customer requirements.

2.3 Fully Hydraulic Drive Centrifuge

GN Solids Control is a leading decanter centrifuge manufacturer. And Viscotherm and ROTODIFF® from Switzerland are leading brand for centrifuge hydraulic driving system. GN and Viscotherm has been jointly working together to develop the Full hydraulic drive centrifuge for international clients to meet the highest standard.
The advantage of the FHD centrifuge is for use in high temperature ambient for heavy mud with flexible bowl and differential speed. The compact one skid design makes it easier for rig up.

The full hydraulic system consists of A the Hydraulic Pump Unit, B the Bowl drive hydraulic motor, and C the Scroll drive (Rotodiff).The hydraulic pump unit A feeds hydraulic oil to the scroll drive C and the bowl drive B by means of two separate and individually independent operating circuits. An electric motor A1 drives the combined pumps A2 and A3. Each operating circuit is equipped with its own
hydraulic pump and its own controls. The pump unit contains all setting devices and safety valves, as well as pressure gauges. With this system, the bowl's rotational speed as well as the scroll's differential speed maybe manually adjusted independently from one another, continuously and infinitely variable during the centrifuge's operation.



A Hydraulic Pump Unit :
A1 EEx Electric Motor
A2 Variable Displacement Hydraulic Piston Pump, Bowl Drive
A3 Variable Displacement Hydraulic Piston Pump, Scroll Drive
A4 Controls
A5 Oil Tank
A6 Variable Scroll Speed, Variable Bowl Speed
A7 Flow Meters
A8 High Pressure Oil Filter
A9 Pressure Gauges
A10 Oil Level Gauge A11 Oil Temperature Gauge
A12 Oil-Air Cooler A13 Return Line Oil Filter
A14 Shut Off Valve

B Bowl Drive:
B1 High Speed Hydraulic Piston Motor
B2 Anti Cavitation Device
B3 Semi-Flexible Coupling

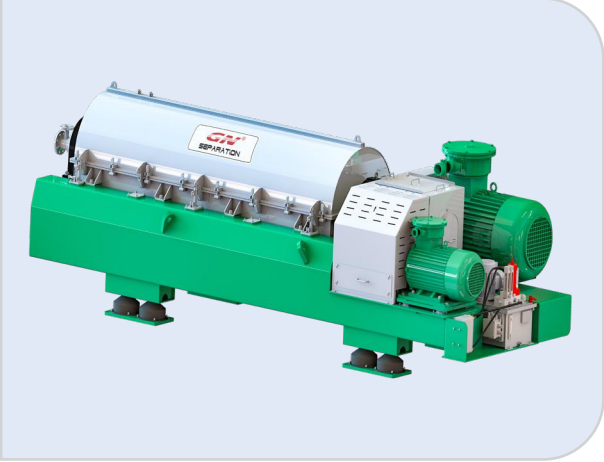
C Scroll Drive:
C1 Rotodiff Hydraulic Motor
C2 Connection Block

D Centrifuge:
D1 Centrifuge Bowl
D2 Centrifuge Scroll

2.4 Dewatering Decanter Centrifuge-T Series

T Series of GN Decanter centrifuge is the dewatering type centrifuge. The beach Angle of T Series centrifuge is 8.5 degree. T Series Dewatering Decanters are continuously operating horizontal solid-wall bowl centrifuges for maximum dewatering requirements of municipal and industrial wastewater sludge.

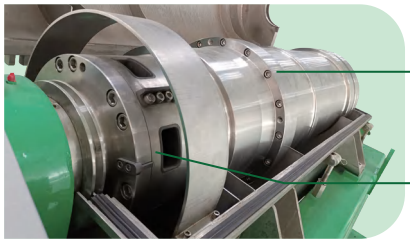
T Series Dewatering Centrifuge main applications: Drilling mud, environmental protection sewage, oily sludge, chip fluid, sand washing water, mineral water, soda white mud, salt mud dewatering, municipal and industrial wastewater sludge etc.



Dewatering Decanter Centrifuge-T Series Specs

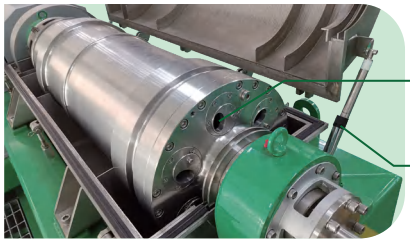
Model	GN-LW-224GT	GN-LW-364GT	GN-LW-454GT	GN-LW-554GT	GN-LW-654GT	GN-LW-764A
Bowl Diameter	220 mm (9 Inch)	360 mm (14 Inch)	450 mm (18 Inch)	550 mm (22 Inch)	650 mm (25.6 Inch)	760 mm (30 Inch)
Bowl Length	924 mm (36.4 Inch)	1512 mm (59.5 Inch)	1890 mm (74.5 Inch)	2310 mm (91 Inch)	2730 mm (107.5 Inch)	3328 mm (131 Inch)
Max Bowl Speed	5099 RPM	3986 RPM	3452 RPM	3123 RPM	2873 RPM	2612 RPM
Max G Force	3200 G	3200 G	3000 G	3000 G	3000 G	2900 G
L/D Ratio	4.2	4.2	4.2	4.2	4.2	4.4
Main Motor	11 KW	20/30/37 KW	37/45/55 KW	55/90 KW	90/110 KW	110/132/160 KW
Back Motor	5.5 KW	7.5/11 KW	11/15/22 KW	15/37/45 KW	18.5/22/37/55 KW	22/37/75/90 KW
Beach Angle	8.5 Degree					
Drive Type	VFD+PLC+ HMI					
Bowl Material	Duplex Stainless Steel SS2205 from centrifugal casting					
Screw Material	Duplex Stainless SS2205 / SS316					
Wear Protection	Tungsten Carbide Tiles					
Remarks	Above specification is for reference only, final specifications should be based on contract.					

2.4.1 Dewatering Decanter Centrifuge-T Series Features



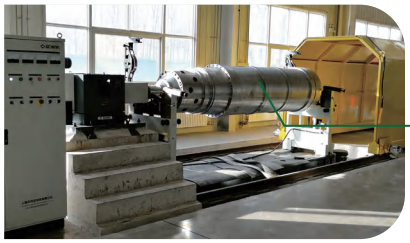
The bowl of T Series centrifuge is made from Duplex Stainless Steel SS2205 by centrifugal casting which is better than SS304 or SS316.

The solids discharge port is made from Tungsten carbide inserts, the anti-abrasion will extend the life.

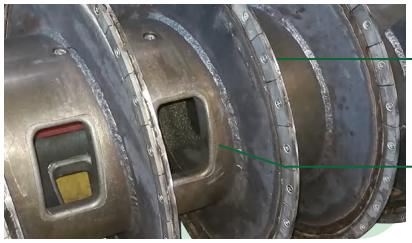


Flexible pond depth adjustment for different material separation.

The air-operated spring for assisting open of the cover with safety locking system.



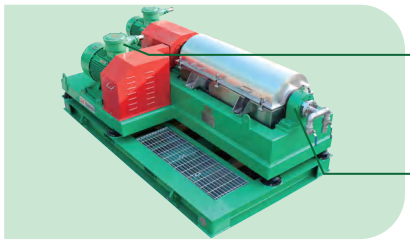
3 Stage balancing process to maximize the balance of the centrifuge include 1800RPM low speed balancing and real operation high speed balancing as well as the assembly balancing.



The Screw is protected by interchangeable Tungsten Carbide Tiles for longer life and easy maintenance.

The mud distribution port is made from Tungsten carbide inserts, the anti-abrasion will extend the life for heavy mud.

The screw is made from stainless steel with heat treatment, and the opening impeller will improve the centrifuge capacity. Single Lead or double lead screw is optional



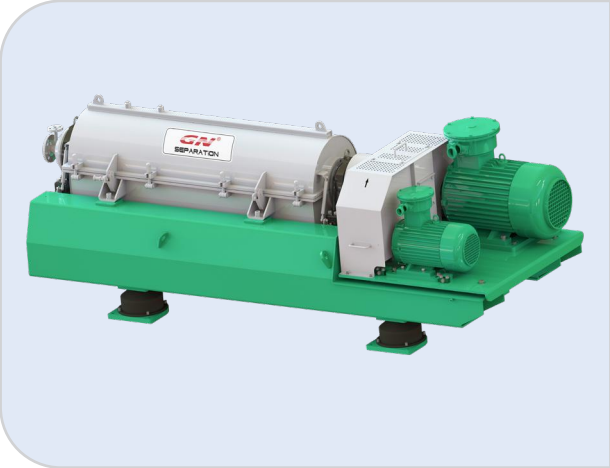
Two motors in one side to give more space for the operator to do maintenance.

The bearings is premium SKF bearing for reliable and longer operation. The automatically lubrication system is available for option.

2.5 Separation Decanter Centrifuge-Y Series

Y Series of GN Decanter centrifuge is the separation type centrifuge. The beach Angle of Y Series centrifuge is 15 degree. Y Series separation type centrifuge mainly used for separation of two phase material and also fit for material with viscosity.

Main Application of Y Series Centrifuge: Mineral oil, chemical viscous materials, fruit juice, coffee, tea, wine, soybean milk, rubber treatment in leather factories, biodiesel, starch and so on.



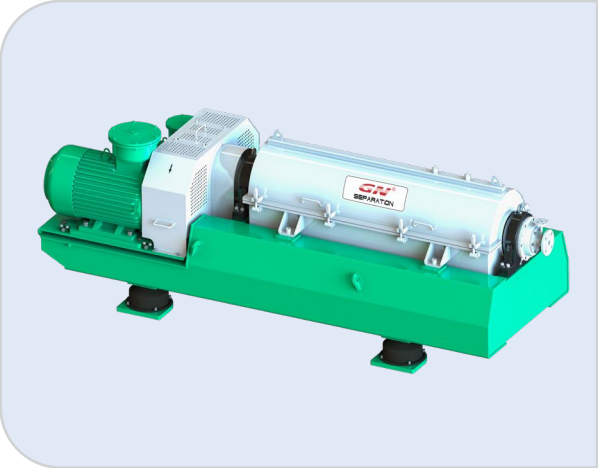
Separation Decanter Centrifuge-Y Series Specs

Model	GN-LW-224GY	GN-LW-364GY	GN-LW-454GY	GN-LW-554GY	GN-LW-654GY	GN-LW-764GY
Bowl Diameter	220 mm (9 Inch)	360 mm (14 Inch)	450 mm (18 Inch)	550 mm (22 Inch)	650 mm (25.6 Inch)	760 mm (30 Inch)
Bowl Length	924 mm (36.4 Inch)	1512 mm (59.5 Inch)	1890 mm (74.5 Inch)	2310 mm (91 Inch)	2730 mm (107.5 Inch)	3328 mm (131 Inch)
Max Bowl Speed	5099 RPM	3986 RPM	3452 RPM	3123 RPM	2873 RPM	2612 RPM
Max G Force	3200 G	3200 G	3000 G	3000 G	3000 G	2900 G
L/D Ratio	4.2	4.2	4.2	4.2	4.2	4.4
Main Motor	11 KW	22 KW	37/45 KW	55 KW	75/90 KW	90/110 KW
Back Motor	5.5 KW	7.5 KW	7.5/11 KW	11/15 KW	15/18.5 KW	18.5/22 KW
Beach Angle	15 Degree					
Drive Type	VFD+PLC+ HMI					
Bowl Material	Duplex Stainless Steel SS2205 from centrifugal casting					
Screw Material	Duplex Stainless SS2205 / SS316					
Remarks	Above specification is for reference only, final specifications should be based on contract.					

2.6 Clarifying Decanter Centrifuge-C Series

C Series of GN Decanter centrifuge is the Clarifying type centrifuge. The beach Angle of C Series centrifuge is 20 degree. C Series Clarifying decanters are designed for the continuous separation of suspensions into solids and clarified liquid, without interrupting the feed of the suspension.

Main Application of C Series Centrifuge: Edible oil, Protein, Cheese, Casein ,Lactose， Beverage, Fish By-Products ,oil and water clarifying etc.

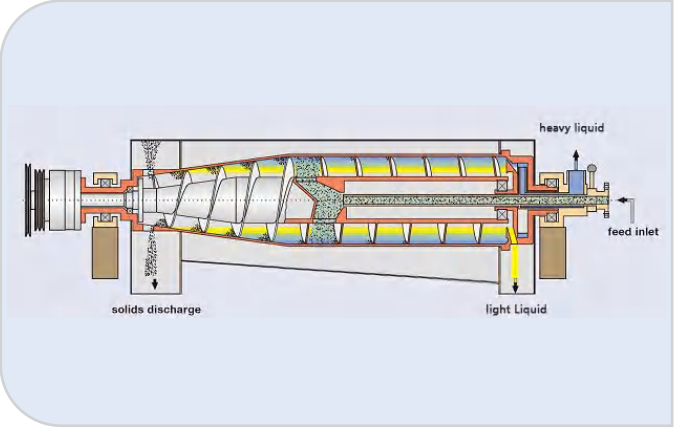


Clarifying Decanter Centrifuge-C Series Specs

Model	GN-LW-224GC	GN-LW-364GC	GN-LW-454GC	GN-LW-554GC	GN-LW-654GC	GN-LW-764GC
Bowl Diameter	220 mm (9 Inch)	360 mm (14 Inch)	450 mm (18 Inch)	550 mm (22 Inch)	650 mm (25.6 Inch)	760 mm (30 Inch)
Bowl Length	924 mm (36.4 Inch)	1512 mm (59.5 Inch)	1890 mm (74.5 Inch)	2310 mm (91 Inch)	2730 mm (107.5 Inch)	3328 mm (131 Inch)
Max Bowl Speed	5099 RPM	3986 RPM	3452 RPM	3123 RPM	2873 RPM	2612 RPM
Max G Force	3200 G	3200 G	3000 G	3000 G	3000 G	2900 G
L/D Ratio	4.2	4.2	4.2	4.2	4.2	4.4
Main Motor	11 KW	22/30 KW	37/45 KW	55 KW	90/110 KW	110/132 KW
Back Motor	5.5 KW	7.5 KW	11/15/18.5 KW	15/18.5 KW	18.5/22/30 KW	22/30/37 KW
Beach Angle	20 Degree					
Drive Type	VFD+PLC+ HMI					
Bowl Material	Duplex Stainless Steel SS2205 from centrifugal casting					
Screw Material	Duplex Stainless SS2205 / SS316					
Remarks	Above specification is for reference only, final specifications should be based on contract.					

2.7 3 Phase Decanter Centrifuge

The three-phase decanter centrifuge operation is based on the principle of sedimentation, that is, solid particles with specific liquid weight precipitate in a predetermined time. This principle can also be applied to two immiscible liquids with different specific gravities. When the material enters the high-speed rotating bowl, the material rotates synchronously with the bowl. Because of the different specific gravity, the centrifugal force is different. The solid particles with the larger specific gravity are subjected to the greatest centrifugal force, followed by the heavy phase liquid (such as water) and the light phase liquid (such as oil). So the centrifugal force is becoming less from outside to inside according to the magnitude of centrifugal force. A concentric solid layer and two liquid layers are formed. Solids are pushed out by the screw conveyor, and liquids are removed from their respective nozzles. Therefore, the application of three-phase decanter centrifuge can not only separate the solid in the material, but also separate the two-phase liquid with different specific gravity in the material, that is, Solid-liquid-liquid separation can be achieved.



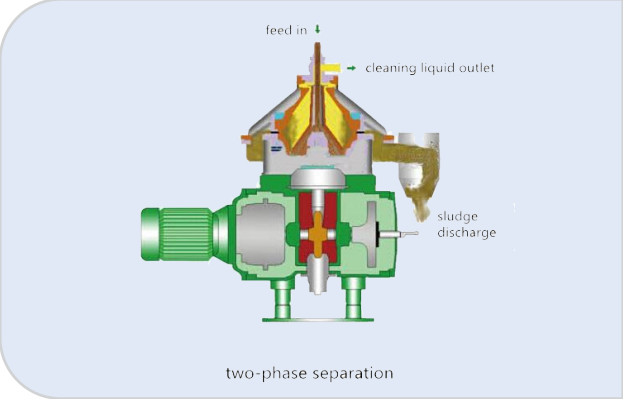
3 Phase Decanter Centrifuge

Model	GNLWS-364	GNLWS-454	GNLWS-554
Type	Solids Liquid Liquid Separation		
Bowl Dia	360mm	450mm	550mm
Bowl Length	1567mm	1947mm	2347mm
Capacity	5 m3/h	10 m3/h	15m3/h
Max Speed	3986 RPM	3452 RPM	3123 RPM
Max G Force	3200 G	3000 G	3000 G
Diff. Speed	0-30 RPM	0-30 RPM	0-30 RPM
Main Drive	30 KW/22KW	45KW/37 KW	75KW/55KW
Back Drive	7.5KW	15 KW/11KW	18.5KW/22KW
Lubrication	Grease type	Grease Type	Oil Lubrication
Oil Pump Size	N/A	N/A	0.37 KW
Feed Material	Solids Less 10% and Particle Size less than 2mm		

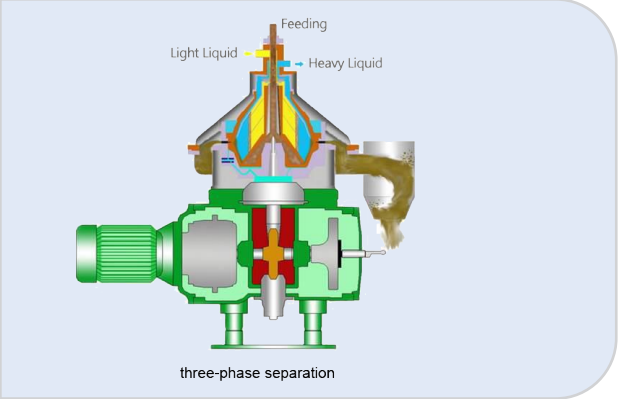
Part 3: Disc Stack Separator

3.1 Disc Stack Separator Introduction

The disc stack separator is also called disc separator, disc centrifuge or conical plate centrifuge, which belongs to a type of vertical centrifuge. The disc separator is driven by a motor and rotates at high speed. In the bowl of the disc separator, there is a set of disc-shaped parts nested with each other-commonly known as discs which are used for centrifugal sedimentation of materials. The suspension (or emulsion) to be processed enters the bowl of the disc separator through the feed pipe and flows through the gap between the discs, the solid particles (or droplets) settle on the disc under the action of the centrifuge to form a sediment (or liquid layer). The sludge slides along the surface of the disc to separate from the disc and accumulates in the inner bowl where the diameter is large, and the separated liquid is discharged from the bowl through the liquid outlet. By using the disc separator, solid-liquid-liquid 3-phase separation or solid-liquid separation is realized.



two-phase separation



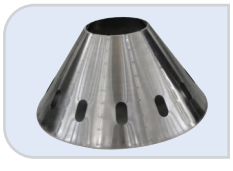
three-phase separation

Common Types of Disc Stack Separator

- Mineral, Biodiesel Oil Disc Separator Series
- Beer, Beverage Disc Separator Series
- Vegetable Oil, Animal Oil Disc Separator Series
- Biological, Pharmaceutical Disc Separator Series
- Marine Disc Separator Series
- Dairy Disc Separator Series
- Latex Disc Separator Series
- Starch Disc Separator Series
- Yeast Disc Separator Series
- Chemical Disc Separator Series

Disc Separator Application Features

- The key parts of the bowl are processed by CNC machine, and the dynamic balance test is carried out for all parts after precise assembly. The bowl is made of stainless steel with high strength and good corrosion resistance. It is forged under high pressure, tested four times and processed by numerical control. To ensure the separator in a long time, high load, high speed safe and reliable operation.



- All processes of disc processing are formed by a unified mold, and the surface finishing treatment has reached the international advanced level. All the discs are formed by one-time spinning, and the surface is precisely finished, so that the fluid is separated under the minimum friction resistance, and the best separation effect is obtained.

- The control system of the separator can control the start, stop, emergency stop, manual slag discharge and current monitoring in real time. Each separator is equipped with independent PLC control and independent touch screen. Four alarm functions ensure the safe and stable operation of the equipment: vibration alarm, speed alarm, insufficient slag discharge value alarm, and drum leakage alarm.

3.2 Disc Separator 2-Phase

The 2 phase disc stack separator is used to separate the fine particles from the liquid and discharge clarified liquid. Compared with decanter centrifuge, the G force of 2 phase disc stack separator is much higher than decanter centrifuge. The disc stack separator G force is up 12000g. Generally, the G force of the decanter centrifuge is about 3000G. The high speed and G force makes the disc stack separator to produce high clarified liquid. However, the materials separated by disc separator should not have high solid content or big particles. Usually the particles content should be less than 3%, it's better to be 1%. Therefore, in some application, pre-treatment will be carried out by decanter centrifuge or other separation equipment, and then clarification and separation will be carried out in the 2 phase disc stack separator.

The 2 phase disc stack separator is widely used in vegetable oil clarification, biological and chemical pharmaceutical industry, dairy and beverage industry, biofuel and marine oil clarification, etc.

Model	GNLD-40	GNLD-90	GNLD-125	GNLD-225
Type	Solid-Liquid Separation（Liquid Clarification）			
Bowl Diameter	440mm	580mm	620mm	800mm
Sliding Piston	380mm	500mm	550mm	700mm
Max Capacity	1-2 m^3/h	5-10m^3/h	10-15 m^3/h	20-25 m^3/h
Max Speed	7100RPM	6150RPM	6000RPM	4500RPM
Max G Force	12409G	12273G	12488G	9063G
Motor Power	11KW	18.5KW	30KW	45KW
Feeding Pressure	0-0.1Mpa			
Starting Time	10-15Minutes			
Feeding Material	Solids<3%			

3.3 Disc Separator 3-Phase

Model	GNSD-40	GNSD-90	GNSD-125	GNSD-225
Type	3 Phase Disc Separator (Oil, Water & Solids)			
Bowl Diameter	440mm	580mm	620mm	800mm
Slide Piston	380mm	500mm	550mm	700mm
Theory Capacity	1-2 m^3/h	5-10m^3/h	10-15 m^3/h	20-25 m^3/h
Max. Speed	7100RPM	6150RPM	6000RPM	4500RPM
Max. Separation Factor (G)	12409G	12273G	12488G	9063G
Motor Power	11KW	18.5KW	22KW	45KW
Feeding Pressure	0-0.1Mpa			
Starting Time	10-15 minutes			
Feed Material	Solids<3%			
Application	Oil & Water & Solid Separation			

Product Features

GN Disc Separator is a high-speed, stable, airtight, high-efficiency and automatic slagging three-phase separation equipment, widely used for oil, solids and water separation. The high G force is capable to clarify the material to very clean liquid. All wearing parts are made of high-grade stainless steel, which effectively reduce the chemical action of the separated material and the surface of the wet-touch parts. The separated light and heavy phase materials are respectively output by two centripetal pumps of different sizes. The machine adopts the upper feeding form, and the inlet pressure for the material is low. The power transmission adopts hydraulic coupling and a pair of spiral speed increasing gears or belt driven, which can achieve stable speed increase and overload protection.

- The slagging action of the sliding piston is automatically controlled by a PLC automatic control cabinet, which is specially designed with safety protection device, which can achieve high level of automation, strong adaptability to craft adjustment and convenient adjustment.
- It has the advantages of high revolving speed, stable operation; complete sealing of the import and export system, low noise and good separation effect. The professionally designed centripetal pump system has the characteristics of stable output pressure, large adjustment range and convenient operation.

Part 4: Mining Vibrating Screen

4.1 Stack Vibrating Screen

GN Stack Vibrating Screen is mainly suitable for wet screening, classification and dehydration treatment of fine-grained materials in mineral processing, coal preparation and other industries. It can be set to 2 to 5 layers according to on-site requirements. GN Stack Vibrating Screen is a self-developed product of GN Company. It is designed and driven by a single vibration source (dual vibration motor) by using the principle of two-degree-of-freedom resonance to realize linear vibration of the whole machine. GN Stack Vibrating Screen has unique vibration mode, energy saving, high screening efficiency, large processing capacity, advanced technology, simple structure, stable and reliable operation, and is currently one of the most advanced equipment in the field of fine-grained material screening. GN Stack Vibrating Screen adopts Polyurethane Screen Mesh, with high opening rate (28-45%) and average life span of more than 6 months.

Stack Vibrating Screen Specs (1)

Model	GND3Z 1014	GND4Z 1014	GND5Z 1014	GND2Z 1021	GND3Z 1021	GND4Z 1021	GND5Z 1021
Screen Deck layers	3	4	5	2	3	4	5
Total Screening Area	4.2m²	5.6m²	7m²	4.2m²	6.3m²	8.4m²	10.5m²
Linear Vibration Amplitude (Double)	1-2mm						
Total Installed Power (output)	2 sets×1.84 kW						
Vibration Frequency	25Hz						
Screen Inclination	17.5°						
Mesh Size	0.045-2mm						
Screen Inclination	700×1050 (mm)						
Dry Ore Discharge Capacity(m³/h)	6~18	8~24	10~30	5~12	6~19	8~25	10~32

Stack Vibrating Screen Specs (2)

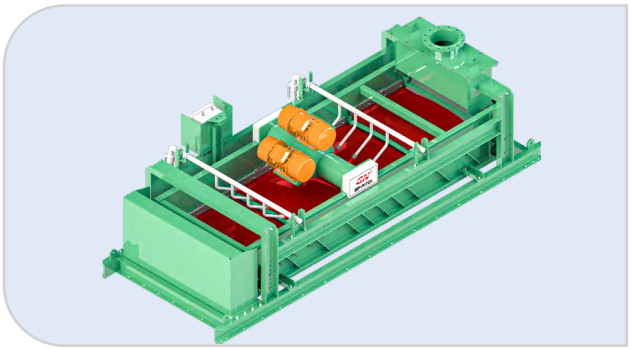
Model	GND3Z 1216	GND4Z 1216	GND5Z 1216	GND3Z 1416	GND4Z 1416	GND5Z 1416
Screen Box Layers	3	4	5	3	4	5
Total Screening Area	5.76m²	7.68m²	9.6m²	6.72m²	8.96m²	11.2m²
Linear Vibration Amplitude (Double)	1-2mm					
Total Installed Power (Output)	2sets×1.84kW					
Vibration Frequency	25Hz					
Screen Inclination	17.5°					
Mesh Size	0.045-2mm					
Screen Size (L×W)	840×1250(mm)			840×1450(mm)		
Number Of Screen	6	8	10	6	8	10
Processing Capacity (Dry Ore m³/h)	7~21	9~28	12~36	8~25	11~33	14~42

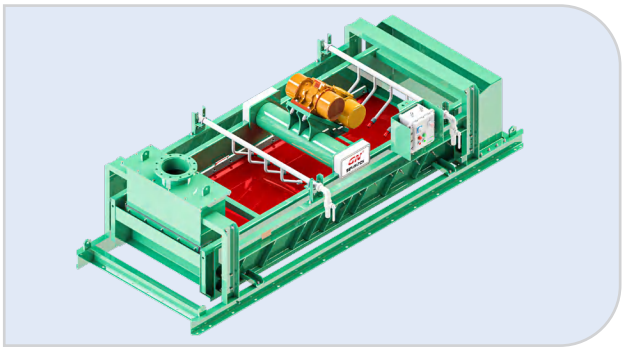
Stack Vibrating Screen Features

- GN Stack Vibrating Screen is designed with dual-motor self-synchronization principle, and the screen box assembly moves linearly.
- Imported vibration motor (Martin motor or OLI motor) with advanced technology, reliable operation and long trouble-free operation time.
- The screen box general assembly of the Stack Vibrating Screen is arranged in multiple layers. Compared with similar vibrating screen, it has the advantages of small footprint, large processing capacity per unit area, high screening efficiency, low power consumption, small dynamic load, simple operation, stable performance, safety and durability, low maintenance and so on.
- The Polyurethane Screen Mesh is used, which has good elasticity and is not easy to be blocked. Two to three screens can be installed in the each single-layer screen box.
- The screen is fixed by pulling-bolt components, which is easy to operate and reliable to fasten.
- The surface treatment of the vibrating screen adopts the sandblasting process, and the heavy anti-corrosion paint is used for spraying, which has good anti-corrosion performance. The contact surface with the material adopts the form of spraying polyurea resin wear-resistant anti-corrosion layer to protect the surface of the screen and prolong the service life of the screen.

4.2 High Frequency Vibrating Screen

GN High Frequency Vibrating Screen is mainly suitable for wet screening, classification and dewatering treatment of fine-grained materials in mineral and coal preparation and other industry. It is a self-developed product of GN, using the two-degree-of-freedom resonance principle. Designed to use a single vibration source (dual imported vibration motors) to drive and realize the linear vibration. High Frequency Vibrating Screen has the advantages of large screening area, adjustable screen box angle, compact structure, excellent performance and high cost performance. Unique vibration mode, energy saving, high screening efficiency, large processing capacity, advanced technology, simple structure, stable and reliable operation. As one of the most advanced equipment in fine-grained material screening, it used Polyurethane Screen Mesh, with high rate opening rate (28-45%), and the average life is more than 6 months.





High Frequency Vibrating Screen Specs

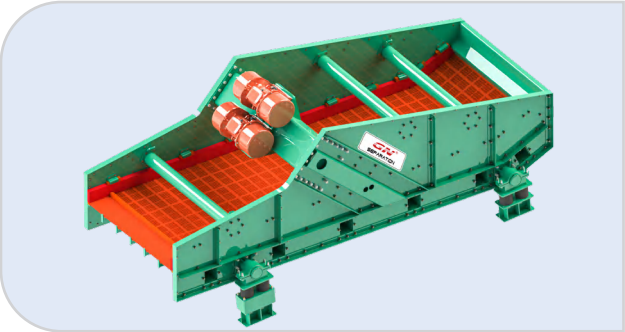
Model	GNFG1021	GNFG1028	GNFG1232	GNFG1440
Total Screen Area	2.1m²	2.8m²	3.84m²	5.6m²
Linear Vibration Amplitude (Double)	2-3mm			
Total Installed Power (Output)	2sets×1.2kW		2sets×1.5kW	2sets×1.84kW
Vibration Frequency	25Hz			
Screen Inclination	0-3°			0-2°
Mesh Size	0.045-2 mm			
Screen Size (length × width)	700×1050 (mm)		840×1250 (mm)	840×1450 (mm)
Number of Screen Mesh	3 Pcs	4 Pcs	4 Pcs	5 Pcs
Processing Capacity (Dry Ore m³/h)	3~8 m³/h	3~9 m³/h	4~11 m³/h	4~15 m³/h

High Frequency Fine Vibrating Screen Features

- High Frequency Vibrating Screen is designed based on the principle of self-synchronization of dual motors, and the screen box assembly moves in a linear line.
- Imported vibration motor (Martin motor or OLI motor) with advanced technology, reliable operation and long trouble-free operation time.
- The screen box assembly is arranged in multiple stages, which has the advantages of large processing capacity, high screening efficiency, low power consumption, small dynamic load, simple operation, stable performance, safety and durability, and low maintenance.
- The mechanical angle adjustment of the screen box assembly is convenient and reliable.
- The overall heat treatment of the screen box can meet the long-term work under high vibration intensity.
- International famous brand electrical components, Siemens or Schneider components.
- Polyurethane Screen Mesh is adopted, good elasticity, not easy to block the screen, three to four screens can be installed.
- The screen is fixed by the pulling bolt assembly, which is easy to operate and reliable to fasten.
- The surface of the vibrating screen is treated by sandblasting and sprayed with heavy anti-corrosion paint, which has good anti-corrosion performance.

4.3 Dewatering Vibrating Screen

GN Dewatering Vibrating Screen is widely used in the mining industry, coal industry, construction material, metallurgy industry, and chemical industry. The linear motion dewatering vibrating screen can be used for dewatering, desliming, demineralization and dry discharge of mining tailings. The equipment adopts advanced design such as finite element analysis and anti-fatigue analysis to ensure the reasonable structure of the screen, low energy consumption and large dewatering and dry discharge capacity. It can be adapted into various working conditions that are easy to corrode and wear. Large processing capacity, high efficiency and stable performance. The size of the machine can also be customized according to customer requirements.



High Frequency Vibrating Screen Specs

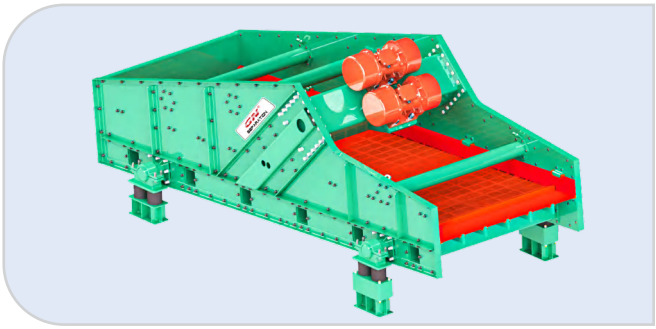
Model	GNLMZ1236	GNLMZ1536	GNLMZ1836	GNLMZ1848	GNLMZ2448
Screen Area	4.32 m²	5.4 m²	6.48 m²	8.64 m²	11.52m²
Vibration Direction Angle	38~52 Degree				
Vibration Frequency	16 Hz				
Power	2*2.9 kW	2*2.9 kW	2*4.5 kW	2*5 kW	2*7kW
Double Amplitude	4~6 mm				
Screen Opening	0.2-25mm				
Dry Material Discharge Capacity	8~20 m³/h	12~25 m³/h	24~32 m³/h	25~35 m³/h	30~45m³/h
Installation Inclination °	±4				

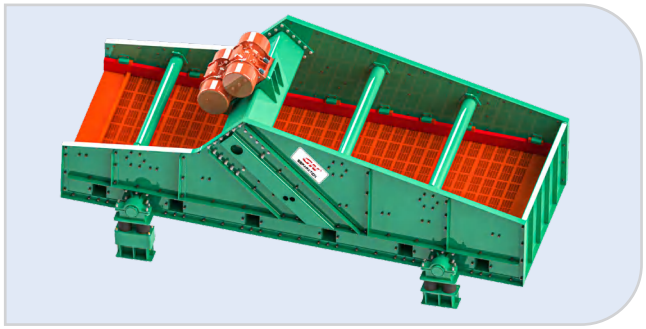
Dewatering Vibrating Screen Features

- The whole machine is installed at a positive inclination angle, and the installation angle is 4 degrees adjustable, which is suitable for the requirements of different process materials.
- The folding design of the feeding end of the screen panel is more conducive to dewatering treatment and prolongs the service life of the screen panel.
- The rubber damping spring design has the advantages of good damping effect, low noise, small resonance field, good resilience, stable mechanical performance, long service life and low cost.
- The wallboard is not welded. The steel plate with better impact toughness and cold bending is selected, and the imported HUCK rivet is used for hydraulic tension assembly. This advanced design makes the wallboard free of welding residual stress and material defects, so as to avoid the reduction of fatigue strength of wallboard due to the above defects.
- Through finite element analysis, optimize the structural strength and vibration quality of the screen machine to the greatest extent, reduce stress and prolong the service life of the equipment.
- The fluids touching parts and easily worn parts are sprayed with polyurea by the spraying machine imported from the United States, which is corrosion-resistant, erosion resistant and wear-resistant.
- The post weld heat treatment process of main components can effectively eliminate the welding stress.
- Product serialization to meet the manufacturing requirements of customers under different process conditions; Polyurethane screen panel is modular, more versatile and more convenient to replace.

4.4 Classification Vibrating Screen

GN Classification Vibrating Screen is widely used in the classification and screening of iron ore, coal, non-ferrous metal ore, building materials, chemical industry and other materials. The equipment adopts advanced design means such as finite element analysis and anti-fatigue analysis to ensure the reasonable structure, low energy consumption and large screening and classification capacity of the screening machine. It can be applied in various working conditions that are easy to corrode and wear. Large processing capacity, high efficiency and stable performance. The size of the screen machine can also be customized according to customer requirements.





Classification Vibrating Screen Specs

Model	GNLMP 1224	GNLMP 1236	GNLMP 1536	GNLMP 1836	GNLMP 1848	GNLMP 2448
Screen Area	2.88 m²	4.32 m²	5.4 m²	6.48 m²	8.64 m²	11.52m²
Vibration Direction Angle	38~52 Degree					
Vibration Frequency	16 Hz					
Power	2*2.35kW	2*2.9kW	2*2.9kW	2*4.5kW	2*5kW	2*7kW
Double Amplitude	4~6mm					
Screen Opening	0.2~25mm					
Dry Material Discharge Capacity	3~12 m³/h	5~18 m³/h	6~20 m³/h	8~28 m³/h	10~40 m³/h	10~80m³/h
Installation Inclination	±4 Degree					

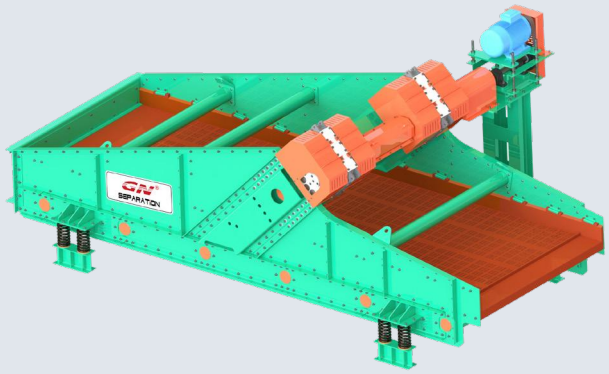
Classification Vibrating Screen Features

- The wallboard is not welded. The steel plate with better impact toughness and cold bending is selected, and the imported HUCK rivet is used for hydraulic tension assembly. This advanced design makes the wallboard free of welding residual stress and material defects, so as to avoid the reduction of fatigue strength of wallboard due to the above defects.
- Through finite element analysis, optimize the structural strength and vibration quality of the screen machine to the greatest extent, reduce stress and prolong the service life of the equipment.
- The fluids touching parts and easily worn parts are sprayed with polyurea by the spraying machine imported from the United States, which is corrosion-resistant, erosion resistant and wear-resistant.
- The post weld heat treatment process of main components can effectively eliminate the welding stress.
- Product serialization to meet the manufacturing requirements of customers under different process conditions; Polyurethane screen panel is modular, more versatile and more convenient to replace.
- The whole machine is installed at a positive inclination angle, and the installation angle is 4 degrees adjustable, which is suitable for the requirements of different process materials.
- The plane design of the whole screen surface is more conducive to screening and grading materials, and maximizes the effective screening area of the screen surface.
- The rubber damping spring design has the advantages of good damping effect, low noise, small resonance field, good resilience, stable mechanical performance, long service life and low cost.

4.5 Large Mining Vibrating Screen

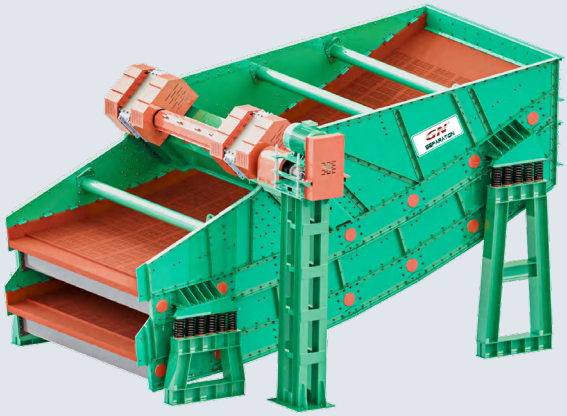
Large Linear Vibrating Screen

GN large linear vibrating screen is mainly composed of box type vibration exciter, screen box, vibration damping spring, support and driving device, and the running amplitude track is linear. The screen machine can be arranged horizontally or at an inclined angle. It is widely used in wet classification, dewatering, demineralization, tailings dry discharge and other process links in mineral processing, coal preparation, gravel aggregate, building materials, chemical industry and other industries.



Large Banana Vibrating Screen

GN large banana vibrating screen running amplitude track is linear. The broken line screen surface design formed by the combination of continuous multi-stage angles is adopted, and the inclination angle of the screen surface at the feeding end is large, which can make the materials move and layer rapidly, which is conducive to the screening of easy screening materials.



Large Flip-Flow Vibrating Screen

GN Large Flip-Flow Vibrating Screen running amplitude is linear. Flip-Flow Vibrating Screen adopts the principle of double mass near resonance, so that the floating screen frame has a large amplitude, and the screen surface can deliver the material with an acceleration of up to 50 G. It is widely used in dry screening of medium and fine-grained, wet, sticky and other difficult to screen materials. It is not easy to block holes and has high screening efficiency.

4.6 Polyurethane Screen

4.6.1 Polyurethane Screen Panel

GN Polyurethane Screen Panel is commonly used in dewatering and classification of mineral process and construction industries. GN polyurethane screen panel is manufactured by the processing technology of steel wire covered with polyurethane. It is characterized by firm structure and durability. GN polyurethane screen panel adopts high-quality polyurethane raw materials, which has excellent elasticity, super wear resistance and good screening efficiency. All polyurethane raw materials and their proportion have been tested and strictly selected, and advanced injection molding technology and precision designed & manufactured molds are used for injection molding, which can guarantee GN polyurethane screen panel completely customized according to your needs. Opening shape and opening size, screen plate thickness, fixing method, overall size and other elements can be arbitrarily determined. GN polyurethane screen panel can also realize various surface shapes on the screen plate: retaining dam, anti smashing strip, guide strip and guide block to improve the screening efficiency.

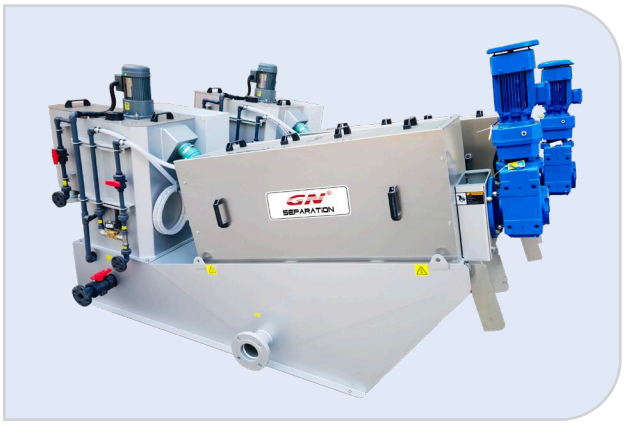
4.6.2 Polyurethane Screen Mesh

Polyurethane screen mesh is often used to adapt to Fine Vibrating Screen and Stack Vibrating Screen. It can be used in vibrating dehydration, material classification and other applications. GN polyurethane screen mesh is a kind of high molecular polyurethane elastomer, which has excellent physical and mechanical properties: high strength, large elasticity and good wear resistance. The opening rate of polyurethane screen mesh is 28% ~ 45%. GN is committed to providing customers with flexible polyurethane screen mesh with finer mesh, higher opening area and better polyurethane screen surface. By adopting advanced production technology and precision designed and manufactured molds, GN creatively combines long life with high opening area, large treating capacity and excellent performance to meet the requirements of efficient separation.

Part 5: Dewatering Screw Press

5.1 Dewatering Screw Press Introduction

GN screw press sludge dewatering machine is a kind of economic and environmental friendly sludge dewatering equipment. It is a new type of sludge extrusion dewatering equipment by using the principle of screw extrusion, through the strong squeezing force generated by the change of screw diameter and screw pitch, and the tiny gap between the floating ring and the fixed ring, to realize solid-liquid separation.



Dewatering Screw Press Working Principle

1. The main body of the screw press sludge dewatering machine is a filtration device composed of fixed ring and moving ring, in which the screw axis runs through. The front section is for concentration and the back section for dewatering.

2. The filtering gap formed between the fixed ring and the moving ring of the dewatering screw press and the pitch of the screw axis gradually decreased from the concentration section to the dewatering section.

3. The rotation of the screw press shaft not only pushes the sludge from the concentration section to the dewatering section, but also continuously drives the moving ring to clean the filtering gap to prevent clogging.

4. After gravity concentration in the concentration section, sludge is transported to the dewatering section. In the process of advance, with the gradual decrease of filtering gap and screw pitch, and the blocking effect of back pressure plate, a great internal pressure is generated; leading the volume is constantly reduced, so as to achieve the purpose of full dewatering.

5. Dewatering screw press is generally applicable to sludge concentration of 2000mg / L-50000mg / L.

Dewatering Screw Press Advantages

1. Suitable for wide range sludge dewatering and can be used for oily sludge treatment.
2. Operating continuously and automatically, not easy to block.
3. Low investment and operation cost, no secondary pollution.
4. Energy saving and environmental friendly, compact design with small footprint.
5. Sludge can be dewatered under aerobic conditions to avoid phosphorus release from anaerobic sludge dewatering.

5.2 Dewatering Screw Press Model Selection

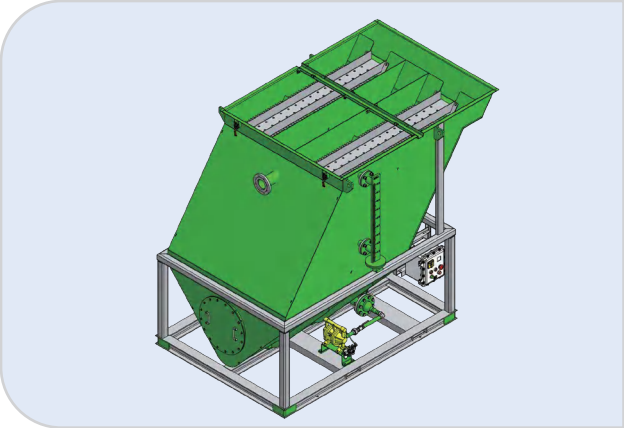
Dewatering Screw Press Capacity Parameter

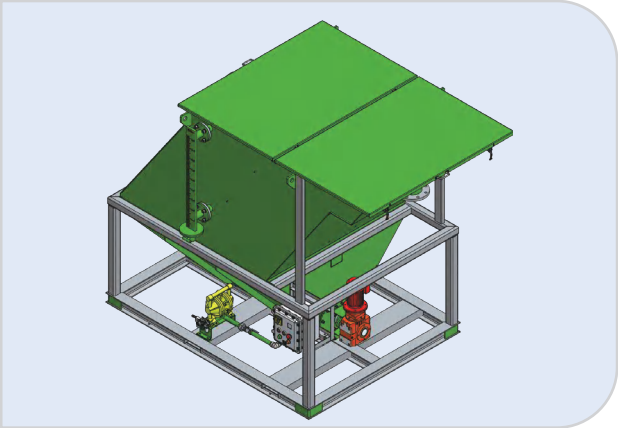
Model	Standard Capacity (For Dry Solids) (kg/h)	Capacity for Sludge with Different Concentration				
		10000mg/L (m^3/h)	20000mg/L (m^3/h)	30000mg/L (m^3/h)	40000mg/L (m^3/h)	50000mg/L (m^3/h)
GNDL131	4 ~ 14	~ 0.6	~ 0.5	~ 0.4	~ 0.3	~ 0.28
GNDL201	15 ~ 20	~ 1.5	~ 0.75	~ 0.6	~ 0.5	~ 0.4
GNDL202	30 ~ 40	~ 3	~ 1.5	~ 1.2	~ 1	~ 0.8
GNDL301	50 ~ 70	~ 5	~ 2.5	~ 2	~ 1.5	~ 1.4
GNDL302	100 ~ 140	~ 10	~ 5	~ 4	~ 3	~ 2.8
GNDL303	150 ~ 210	~ 15	~ 7.5	~ 6	~ 4.5	~ 4.2
GNDL401	130 ~ 160	~ 13	~ 6.5	~ 5	~ 4	~ 3.2
GNDL402	260 ~ 320	~ 26	~ 13	~ 10	~ 8	~ 6.4
GNDL403	390 ~ 480	~ 39	~ 19.5	~ 15	~ 12	~ 9.6
GNDL404	520 ~ 640	~ 52	~ 26	~ 20	~ 16	~ 12.8

Screw Press Dewatering Machine Configuration Parameter

Model	Screw Diameter	Screw Nos.	Screw Power	Agitator Power	Flushing Pressure	Flushing Water (L/H)	Weight (KG)
GNDL131	130mm	1	0.2KW	0.2KW	0.1Mpa-0.2Mpa (No high pressure flushing device is required)	20	205
GNDL201	200mm	1	0.37KW	0.37KW		32	420
GNDL202		2	0.37KW*2	0.37KW		64	550
GNDL301	300mm	1	0.55KW	0.55KW		40	900
GNDL302		2	0.55KW*2	0.55KW		80	1400
GNDL303		3	0.55KW*3	0.75KW		120	1900
GNDL401	400mm	1	1.5KW	0.75KW		80	2200
GNDL402		2	1.5KW*2	0.75KW		160	3500
GNDL403		3	1.5KW*3	1.1KW		240	5500
GNDL404		4	1.5KW*4	0.75KW*2		320	7000

5.3 Inclined Plate Clarifier





Model	Max Flow (m^3/h)	Inlet	Outlet	Sludge Outlet	Sludge Volume (Liter)	Weight (KG)	Dimension(mm)
GNIPC-07B	7	4”	4”	4”	474	1459	1655*1655*1780
GNIPC-14B	14	4”	4”	4”	1023	2069	2495*1655*1780
GNIPC-21B	20	4”	4”	4”	766	2463	2465*1655*2315
GNIPC-35B	34	4”	4”	4”	1251	3318	3205*1655*2315
GNIPC-41B	41	6”	6”	4”	1577	3900	3685*1730*2315
GNIPC-55B	55	6”	6”	4”	2172	4863	4500*1730*2315
GNIPC-69B	68	8”x8”	8”	4”	3904	6555	4065*2595*2950
GNIPC-86B	85	8”x8”	8”	4”	4972	7875	4725*2595*2950
GNIPC-103B	102	8”x8”	8”	4”	5916	9070	5360*2595*2950
GNIPC-120B	119	8”x8”	8”	4”	7034	10340	6100*2595*2950
GNIPC-137B	136	12”x10”	10”	4”	3525	12293	4980*2695*4270
GNIPC-154B	153	12”x10”	10”	4”	4014	13349	5285*2695*4270
GNIPC-188B	188	12”x10”	10”	4”	5063	15739	5970*2695*4270
GNIPC-222B	222	12”x10”	10”	4”	6163	18385	6710*2695*4270
GNIPC-273B	273	12”x10”	10”	4”	7625	21387	7620*2695*4270

Product Features:

GN Inclined Plate Clarifiers (IPC)is a high performance, Lamella plate design for removal of settleable solids in a variety of waste streams. The lamella plate is made from stainless steel.

GN IPC design incorporates inclined plate settling surfaces pitched at a 55° angle from the horizontal with uniform plate spacing. Due to plate angle the solids slide down the plates into the sludge hopper below the plate pack. The simple, inexpensive design, combined with sludge conveyor Auger makes the GN IPC easy toinstall, operate and maintain.

Chemical like polymer pretreatment often improves solids removal efficiencies. The use of chemical flocculants with GNIPC is based on system efficiency, application contaminant characteristics and cost.

Part 6: Conveying Equipment

6.1 Solids Vacuum Pump

Sludge vacuum pump, also named as solids transfer pump. It is a type of pneumatic pump that sucks the material with vacuum produced by air operation, and then converts to positive pressure for discharging.
Most of the solids, sludge and liquid could be transferred by using this pump. With special structure design of no rotating parts in the cavity, it can be used at tough environmental with high working performance and less maintenance. The pump can transfer material with high gravity and high density, solids content max. up to 80%. It has following features: the high efficiency venturi device can produce vacuum up to 25 inch HG (Mercury Column). This is equivalent to vacuum of 85Kpa to suck the material. The pump structure is simple and compact, almost none of wear parts. The transfer distance is up to 500-1000 meters.

Model	GNSP-40B	GNSP-20B	GNSP-10B
Max Capacity(m^3/h)	40m^3/h	20m^3/h	10m^3/h
Inlet/Outlet Size(Inch)	4" (114mm)		3" (89mm)
Vacuum Degree	85Kpa/25 inch HG (Mercury Columm)		
Max Suction Distance(m)	50m		
Max Discharge Distance(m)	1000m	500m	
Max Solids Size(mm)	75mm	50mm	
Pressure Request	550Kpa-785Kpa (80-114PSI)	550Kpa-690Kpa (80-100PSI)	
Air Demand	17m^3/min (600CFM)	8m^3/min(280CFM)	4.3 m^3/min(150CFM)
Weight(kg)	1690×1468×1983mm	1421×900×1448mm	1283×800×1370mm
Dimension: L×W×H(mm)	892kg	386kg	320kg

Video: http://www.gnseparation.ru/solids-vacuum-pump

Material transfer applications

1) Waste mud and waste solids discharged from shale shaker, mud cleaner and centrifuge transfer
2) Drilling mud transfer
3) Waste pit cleaning
4) Hazardous waste recovery
5) Oil sludge, tank bottoms residual removal and transfer
6) Barge holdings and vessel bottom clean out
7) Bulk tank and silo transfer of material
8) Sand; Course, fine, conventional and frac sand
9) Diatomaceous earth
10) Animal waste etc.
12) Powder material

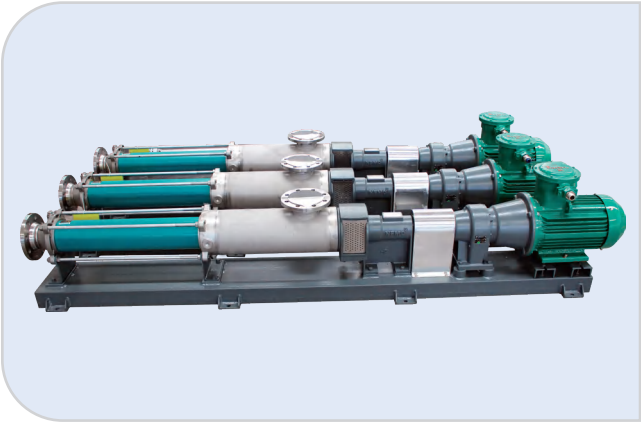
6.2 Centrifugal Sand Pump

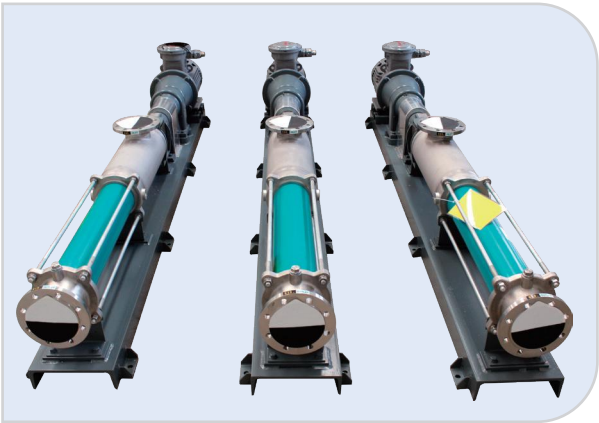
Model	Flow(m^3/h)	Lift(m)	Power(Kw)	Motor Speed(RPM)	Impeller(Inch)
GNSB8×6C-13J	320	35	75	1450RPM(50Hz)	13in
GNSB8×6C-11J				1750RPM(60Hz)	11in
GNSB8×6C-12J	272	35	55	1450RPM(50Hz)	12in
GNSB8×6C-10J				1750RPM(60Hz)	10in
GNSB6×5C-12J	200	35	45	1450RPM(50Hz)	12in
GNSB6×5C-10J				1750RPM(60Hz)	10in
GNSB6×5C-11J	150	30	37	1450RPM(50Hz)	11in
GNSB6×5C-9.5J				1750RPM(60Hz)	9.5in
GNSB5×4C-12J	120	35	30	1450RPM(50Hz)	12in
GNSB5×4C-10.5J				1750RPM(60Hz)	10.5in
GNSB5×4C-11J	90	30	22	1450RPM(50Hz)	11in
GNSB5×4C-9.5J				1750RPM(60Hz)	9.5in
GNSB4×3C-11J	65	35	18.5	1450RPM(50Hz)	11in
GNSB4×3C-10J				1750RPM(60Hz)	10in
GNSB4×3C-10J	55	28	15	1450RPM(50Hz)	10in
GNSB4×3C-9.5J				1750RPM(60Hz)	9.5in
GNSB4×3C-9.5J	45	25	11	1450RPM(50Hz)	9.5in
GNSB4×3C-9J				1750RPM(60Hz)	9in
GNSB3×2C-9J	35	35	7.5	1450RPM(50Hz)	9in
GNSB3×2C-8J				1750RPM(60Hz)	8in

Product Features:

GNSB series centrifugal sand pumps are mainly used for flowing materials containing mud and sand. They can be used as slurry pumps for separating equipment and for transferring and transporting materials before and after separation. All types of sand pumps are mechanically sealed with long service life and reliable performance. All components can be exchanged with internationally renowned pumps to make it easier for users to find wearing spare parts. Compared with screw pump, GN centrifugal sand pump has the advantages of simple operation and maintenance, wear-resistant model and long service life.

6.3 Screw Pump





Model	Flow	Pressure	Motor	Max Speed	Inlet	Outlet	Ex Standard	Weight	Dimension (mm)
GNG10-040C	10m³/h	0.3MPa	4kW	244RPM	DN80	DN80	EXdIIBt4/ IECEX/ ATEX	245kg	2245x320x550mm
GNG20-055C	20m³/h	0.3MPa	5.5kW	210RPM	DN80	DN80		323kg	2450x340x562mm
GNG30-075C	30m³/h	0.3MPa	7.5kW	258RPM	DN100	DN100		386kg	2761x370x600mm
GNG40-110C	40m³/h	0.3MPa	11kW	252RPM	DN100	DN100		454kg	3270x370x665mm
GNG50-110C	50m³/h	0.3MPa	11kW	273RPM	DN125	DN125		608kg	3790x400x782mm
GNG60-150C	60m³/h	0.3MPa	15kW	225RPM	DN125	DN125		649kg	3322x550x740mm
GNG70-220C	70m³/h	0.3MPa	22kW	230RPM	DN150	DN150		875kg	3740x420x785mm
GNG80-220C	80m³/h	0.3MPa	22kW	283RPM	DN150	DN150		875kg	3740x420x785mm
GNG90-220C	90m³/h	0.3MPa	22kW	205RPM	DN150	DN150		875kg	3740x420x785mm

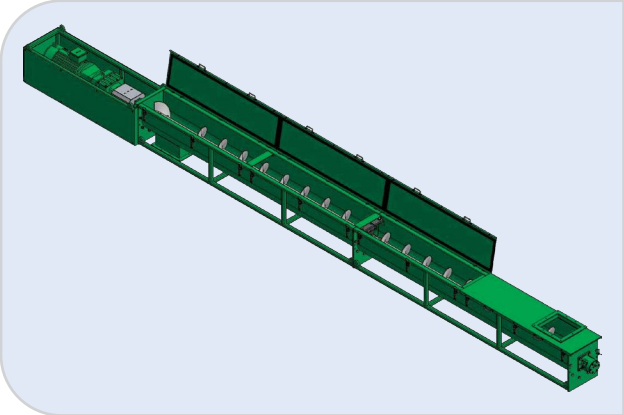
Product Features:

The GNG Series Positive Displacement Pump is a single screw pump .The pump is an ideal pump for feeding to decanter centrifuge without shearing or agitating the drilling mud. The main parts are screw shaft (rotor) and screw shaft bushing (stator). Because of the special geometry shape of the two parts, they form pressurize capacity separately. The fluids flow along with the shaft, inner flow speed is slow, capacity remains, pressure is steady, so it will not generate vortex and agitating. The shaft of the pump is made from Stainless steel, GNG series pump is available for option with complete stainless steel body,

It can drive by coupler, or adjust the speed by using variable speed motor, Triangle V-belt, gear box, etc G series positive displacement pump is with less accessories, compact structure, small volume, easy maintenance, rotor and stator are wear parts of this pump, it is convenient to replace.

The stator is made of elastomeric material, so it has particular advantages than other pump to transfer the fluids of high viscosity and hard suspended particles included.

6.4 U-Type Screw Conveyor



Model	Screw Diameter Inch/mm	Screw Length Ft/m	Capacity (Tons/Hour)	Motor Power (Kw)	Screw Speed (Rpm)
GNSC10B-24	10/250	24/7.3	15	4(5.4HP)	50-70
GNSC10B-36	10/250	36/11	15	5.5(7.5HP)	
GNSC10B-48	10/250	48/14.6	15	7.5(10HP)	
GNSC12B-24	12/315	24/7.3	20	5.5(7.5HP)	50-70
GNSC12B-36	12/315	36/11	20	7.5(10HP)	
GNSC12B-48	12/315	48/14.6	20	11(15HP)	
GNSC14B-24	14/350	24/7.3	30	7.5(10HP)	50-70
GNSC14B-36	14/350	36/11	30	11(15HP)	
GNSC14B-48	14/350	48/14.6	30	15(20HP)	
GNSC16B-24	16/400	24/7.3	45	11(15HP)	50-70
GNSC16B-36	16/400	36/11	45	15(20HP)	
GNSC16B-48	16/400	48/14.6	45	18.5(25HP)	
GNSC18B-24	18/450	24/7.3	55	15(20HP)	50-70
GNSC18B-36	18/450	36/11	55	18.5(25HP)	
GNSC18B-48	18/450	48/14.6	55	22 (30HP)	
Remarks：According to clients requirement, GN Provide customized equipment.					

Product Features:

GNSC series U-type screw conveyor is continuous conveying equipment without flexible traction. It uses the rotating screw to move the conveyed material along the fixed casing for conveying work. Material can be feed in and discharge at any position in the length direction. And a better sealing effect can be achieved by using the cover case. Therefore, screw conveyor is widely used in food, medicine, chemical industry, paper making, environmental solutions, metallurgy, building materials, petroleum, electricity and other industrial sectors. GN Screw conveyors are used to transport a variety of powder, granular and small materials, such as coal ash, cement, sand, lump coal, cereals and so on. There are many types of screw conveyor, which can meet the conveying requirements of different working conditions and different materials.

GN Website

GN Video

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