



Solids Control

Mud Solids Control Specialist



Hebei GN Solids Control Co.,Ltd

Company Profile

Hebei GN Solids Control Co. Ltd is an international brand for drilling mud solids control & waste management equipment as well as shaker screens:

- First API certified solids control equipments manufacturer in China.
- GN Products have been exported to over 60 countries and regions.
- GN Facilities total area is over 70,000 m² close to Beijing.
- GN is one of the very few companies who manufacture both Decanter Centrifuge & Vertical Cutting Dryers in the world.
- GN has already set up over 6 ware house with our partner or division company to serve the world drilling companies.



(Remarks: Tangshan Guanneng Machinery Equipment Co.,Ltd is the old name for GN Solids Control)

Main products and applications:

- OIL & GAS Drilling——Solids Control & Waste Management
- Trenchless & CBM Drilling ——Mud Recycling System
- MINING & ENVIROMENT——Slurry Separation Plant

Complete Line Products

- Solids Control Equipment: Shale Shaker, Mud Cleaner ,Desander ,Desilter, Centrifuge, Agitator, Mixing Hoppers, Flare Igniter, Various Tanks, Pumps, Degassers etc.
- Waste Management Equipment: Hi-G Dryer, Vertical Cutting Dryer, Decanter Centrifuge
- GN Manufacture all types of shale shaker screens in Asia largest wiremesh center city.

Company Vision: Create A World's famous brand: GN Solids Control.

Index

Part 1: GN Advantages:

(1) API Certified manufacturing facilities	02
(2) GN Global Exhibition	04
(3) Strict Quality Control	05
(4) Famous Brand Matching Components	06
(5) Globalized Market	07
(6) Assured Services System	08

Part 2: GN Main Products

(1) Shale Shaker	09
(2) Hi-G Cutting Dryer Shaker	10
(3) Vacuum Degasser	11
(4) Mud Cleaner	12
(5) Desander	13
(6) Desilter	14
(7) Mini Mud Cleaner	15
(8) Decanter Centrifuge	16
(9) Vertical Cutting Dryer	18
(10) Jet Mud Mixer	19
(11) Centrifugal Pump	20
(12) Shear Pump	21
(13) Submersible Slurry Pump	22
(14) Screw Pump	23
(15) Mud Agitator	24
(16) Mud Gun	25
(17) Mud Gas Separator	26
(18) Flare Ignition Device	27
(19) Tanks	28
(20) Screw Conveyor (Auger)	29

Part 3: GN Products Recent Applications

(1) OIL&GAS Drilling——Solids Control System	30
(2) HDD & CBM Drilling ——Mud Recycling System	31
(3) Mining & Industrial——Slurry Separation Plant	32

Part 4: Shaker Screens & Hydrocyclones	33
--	----

Part 1:GN Advantages:

1.API Certified manufacturing facilities.

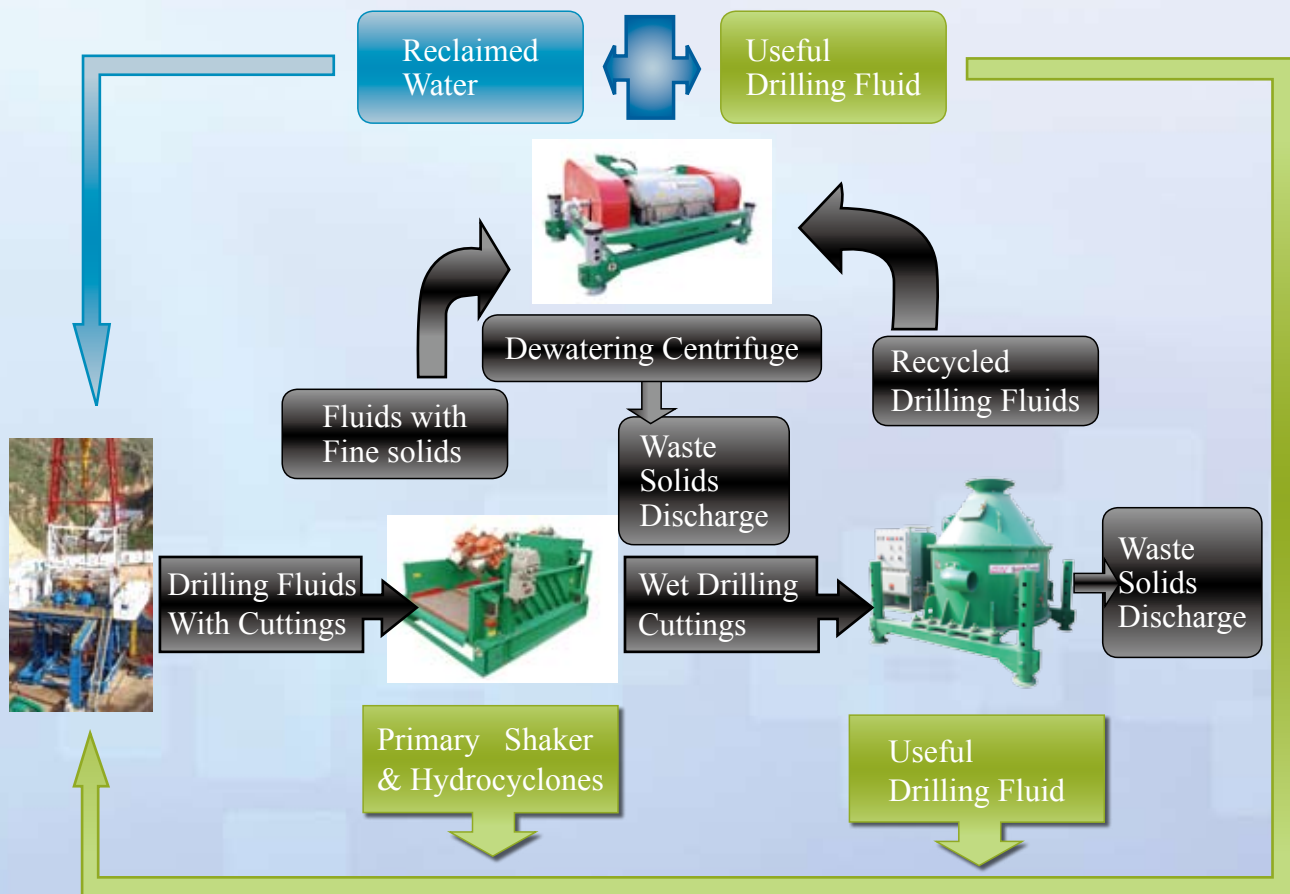
A. GN Beijing two New Advanced facilities are located in a Petroleum Industry Zone with 40Km to Beijing Center & Beijing Int. Airport.Total Area is 40,000m².



B. GN Tangshan 20000 m² Old factory and 10000 m² Shaker Screen factory.



GN clean the mud for all your drilling including oil gas,HDD,CBM,water well,mining drilling etc.



2.GN Global Exhibition



2012 CIPPE Beijing



2012 OTC Houston



2011 Trenchless Australia

3. Strict Quality Control

GN set up experienced QC team and make mature quality inspection standard on inspection process according to API & ISO Standard. GN products are inspected by Tangshan Quality Supervision Bureau as third party inspection



4.Famous Brand Matching Components

GN only focus on “Top Quality Products”

Material Selection: Principle “Quality First, Price Second”

- Steel: National Standard Steel From Top Company(HBIS)
- Matching Parts: Apply world famous brand (Italy Oli, Germany FAG,SKF, Yuanda Valve)
- Electrical Components: SIEMENS/Schneider/ ATEX or IEC Ex Available
- Link Bolts: SS304 or Dacromet coatings material
- Coating & Painting: Japan Kansai or US Carboline brand epoxy zinc-rich anticorrosive paint
- Hydro cyclones: GN own design Polyurethane material clamp type with SS ball valve.
- Shaker Screens: GN own manufacture according to API standard.



5.Globalized Market

GN Solids Control is 1 of the most famous Solids Control International Brand in China. GN Products have been exported to over 60 countries & areas, GN has established Sales & Services Branches in Australia, Argentina, Libya, Turkey and are opening offices & Warehouses in Houston, USA & Dubai & Russia.

Learn More from our Multilanguage Website

- | | |
|---|---|
| • GN Global (English) | • GN China (Chinese) |
| Http://www.gnsolidscontrol.com | Http://www.gngukong.com / http://www.tsgnjx.com |
| • GN Russia (Russian) | • GN Australia (English) |
| Http://www.gnsolidscontrol.ru | Http://www.gnsolidsaustralia.com |
| • GN South America (Spanish) | • GN Middle East (Arabic) |
| Http://www.gnsolidsamerica.com | http://www.gnsolidsarabic.com |



6. Assured Services System

A) Pre-Sales Service: Free consultancy and design With CAD or 3D according to clients requirements, provide optimal proposal for individual clients.

B) After Sales Service: Guarantee & Commissioning: GN Provide 12 Months guarantee after commissioning or 14 Months after shipment whichever comes first, and service for first time commissioning of system and training up clients' engineer.

C) Emergency Service: According to the time of finishing formalities .GN Engineers will leave for the job site ASAP or provide long-distance service, and finish trouble shooting. GN also keeps enlarging offices & warehouse around the world.

D) Spare Parts: GN always have spare parts available in stock either in China or worldwide warehouses to ensure fast delivery.



Part 2: GN Main Products

(1) Shale Shaker



Model	GNZS752	GNZS852	GNZS703	GNZS853
Deck No.	Single Deck			
Vibrating Mode	Linear Motion			
Treating Capacity	200GPM(45m ³ /h)	400 GPM(90m ³ /h)	528 GPM(120m ³ /h)	615 GPM(140m ³ /h)
Motor Power	2×0.75Kw	2×1.5 Kw	2×1.72Kw	2×1.72Kw
Vibrating Strength	≤7.5G (Adjustable)			
Deck Adjustment	2°	-1°~3°	-1°~5°	-1°~5°
Power	380V/50HZ, 460V/60HZ or Customized			
Shaker Screen	2 Panel 1.4m ²	2 Panel 2.1m ²	3 Panel 2.6m ²	3 Panel 3.2m ²
Weir Height	710mm	Buffer Box Top Type:1042mm Back Type:944mm or Low Profile:500mm		
Dimension (Top Buffer Box)	1650x1260x1077mm	1975x1884x1448mm	2403x1884x1448mm	2830x1884x1448mm
Dimension (Back Buffer Box)	N/A	2283x1884x1340mm	2750x1884x1340mm	3180x1884x1340mm
Weight	750Kg	1200Kg	1390Kg	1650Kg
Remarks	Treating capacity test from mud:1.2g/cm ³ density & viscosity 45s & API 40 screen for single Deck.			

Features & Benefits:

- Design :Adopt ANSYS Limited Element Analysis to optimize structure
- Metal & Rubber composite material for dumping spring with longer life
- Vibrating Motor: Italy OLI Brand, IEC Ex and ATEX Option Available
- Deck Material: Q345 High Strength alloy material
- Heat Treatment on complete shaker deck
- Surface painting & coating with heavy anticorrosive Japan Kansai paint
- Electrical components: SIEMENS, Schneider Brand
- Steel frame Pyramid shaker screen to maximize effective screen area
- Wedged Type Shaker Screen for fast screens changing.
- Mechanical Deck Adjustable while operation for reliable performance



(2) Hi-G Cutting Dryer Shaker



Model	GNZS853HG	GNZS703D
Deck No.	Single Deck	Double Deck
Vibrating Mode	Linear Motion	Linear Motion
Treating Capacity	615 GPM(140m ³ /h)	615 GPM(140m ³ /h)
Motor Power	2×1.72Kw	2×1.94Kw
Vibrating Strength	≤7.5G (Adjustable)	≤7.5G (Adjustable)
Deck Adjustment	-1°~5°	-1°~5°
Power	380V/50HZ, 460V/60HZ or Customized	
Shaker Screen	3 Panel 3.2m ² Total Deck Screens Length:2550mm	3 Panel Top Deck 2.0m ² 3 Panel Down Deck 2.6m ²
Weir Height	Buffer Box Top Type:1042mm Back Type:944mm	
Dimension (Top Buffer Box)	2830x1884x1448mm	2419 x 1969 x 1457mm
Dimension (Back Buffer Box)	3180x1884x1340mm	2781 x 1934 x 1353mm
Weight	1650Kg	1800Kg
Remarks	Treating capacity test from mud:1.2g/cm ³ density & viscosity 45s & API 40 screen.	

Features & Benefits:

The GN Hi-G Dryer Shaker is with long shaker deck big capacity which is used for waste management to treat the drilling cuttings from the primary solids control equipments, like shale shaker, desander desilter to dry the solids for transportation, and make the fluids easier for further treatment.

- Design :Adopt ANSYS Limited Element Analysis to optimize structure
- Metal & Rubber composite material for damping spring with longer life
- Vibrating Motor: Italy OLI Brand, IEC Ex and ATEX Option Available
- Deck Material: Q345 High Strength alloy material
- Heat Treatment on complete shaker deck
- Surface painting & coating with heavy anticorrosive Japan Kansai paint
- Steel frame Pyramid shaker screen to maximize effective screen area
- Wedged Type Shaker Screen for fast screens changing.
- Mechanical Deck Adjustable while operation for reliable performance



(3) Vacuum Degasser



Model	GNZCQ270	GNZCQ360
Tank Diameter	800mm	1000mm
Max Capacity	270 m ³ /h(1200GPM)	360 m ³ /h (1500GPM)
Vacuum	0.030~0.050Mpa	0.040~0.065Mpa
Ratio	1.68	1.72
Efficiency	≥95%	≥95%
Main Motor	22KW	37KW
Vacuum Pump	3KW	7.5KW
Rotary speed	870Rpm	880RPM
Dimension	2000×1000×1670mm	2400×1500×1850mm
Weight	1350kg	1800kg

Features & Benefits

GNZCQ Series Vacuum Degassers are able to service the needs of any application .It is usually fixed after the shakers. Each degasser effectively and efficiently removes gases from gas-cut mud, thus ensuring that the proper mud weight is pumped down hole. In doing so, the degassers are able to aid in the prevention of potential blowouts. Unlike the traditional vacuum degasser, GNZCQ vacuum degasser is a self-contained unit. The gas-cut mud is drawn into the degasser by a vacuum created by a regenerative vacuum without needing centrifugal pump .Moreover, GN degasser can act as a big agitator for the drilling mud, which helps the treatment for desander and desilter. GN also have Atmospheric/Centrifugal Degasser available as an alternative to the standard vacuum type degasser.

(4) Mud Cleaner



Model	GNZJ852-1S8N	GNZJ703-2S12N	GNZJ853-3S16N
Treating Capacity	500GPM	1000GPM	1500GPM
Desilter Cones	8x4inch	12x4inch	16x4inch
Desander Cones	1x10inch	2x10inch	3x10inch
Vibrating Mode	Linear Motion		
Matching Pump	30/37Kw	45/55Kw	55/75Kw
Matching Shaker	GNZS852	GNZS703	GNZS853
Shaker Motor	2×1.0 Kw	2×1.72Kw	2×1.72Kw
Screen Area	2.1m ²	2.6m ²	3.2 m ²
Screens Qty	2 Panel	3 Panel	3 Panel
Dimension	1975x1884x1851mm	2403x1884x2195mm	2830x1884x2195mm
Weight	1700Kg	2090Kg	2240Kg
Screen Size	API 120/150/175		
Remarks	GNZJ703-1S8N with 8x4inch desilter and 1x10inch desander is available. GNZJ853-2S12N with 12x4inch desilter and 2x10inch desander is available.		

Features & Benefits:

- Matched with GN advanced technology Shale Shaker for drying.
- 100% Polyurethane(PU) Material for desander and Desilter cones.
- Clamp type desilter cones with Stainless Steel Ball valve for easy maintenance
- Compact design with small footprint.
- Metal & Rubber composite material for damping spring with longer life
- Vibrating Motor: Italy OLI Brand, IEC Ex and ATEX Option Available
- Wedged Type Shaker Screen for fast screens changing.
- Mechanical Deck Adjustable while operation for reliable performance
- Customized Cone Qty is available for option.



(5) Desander

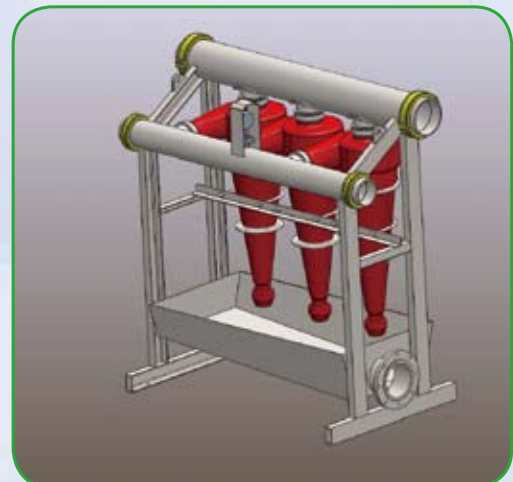


Model	GNWS-1S	GNWS-2S	GNWS-3S
Treating Capacity	500GPM	1000GPM	1500GPM
Cone size	10 inch	10 inch	10 inch
Cone Number	1 Each	2 Each	3 Each
Pressure	0.25~0.4Mpa		
Matching Pump	30/37Kw	45/55Kw	55/75Kw
Separation Size	40-75 microns		
Inlet Size	6inch	6inch	6inch
Outlet Size	8inch	8inch	8inch
Dimension	1618x1000x1900mm	1618x1000x1900mm	1618x1000x1900mm
Weight	430Kg	490Kg	550Kg

Features & Benefits:

The GN 10 Inch desander is used as the 2nd stage of solids control for drilling mud, which makes separations between 40 and 75 microns.

- 100% Polyurethane(PU) Material for desander cones with longer using life
- Clamp type for easy maintenance.
- Tangentially blended into the cone entry as a narrow rectangle to minimizes turbulence in the upper section of the cone, allowing the solids to move quickly to the cone wall.
- Compact design with small footprint.
- Flexible options for 1 or 2, or 3 for different capacities.
- Flexible fast connection are available for user friendly assembly.



(6) Desilter

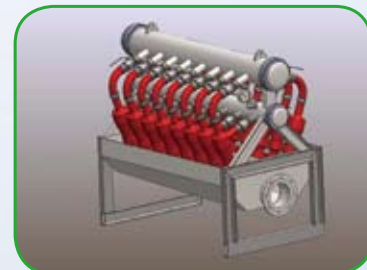


Model	GNWS-8N	GNWS-12N	GNWS-16N
Treating Capacity	500GPM	1000GPM	1500GPM
Cone size	4 inch	4 inch	4 inch
Cone Number	8 Each	12 Each	16 Each
Pressure	0.25~0.4Mpa		
Matching Pump	30/37Kw	45/55Kw	55/75Kw
Separation Size	15-25 microns		
Inlet Size	6 inch	6 inch	6 inch
Outlet Size	8 inch	8 inch	8 inch
Dimension	1880x1000x1600mm	1880x1000x1600mm	1880x1000x1600mm
Weight	565Kg	590Kg	615Kg

Features & Benefits:

The GN 4 Inch desilter is used as the 3rd stage of solids control for drilling mud, which make separations between 15 and 25 microns.

- 100% Polyurethane(PU) Material for desilter cones with longer using life
- Clamp type for easy maintenance
- Shutoff stainless steel ball valves available for option on each cone inlet permit individual cone removal and inspection without interrupting operation of the desilter
- Tangentially blended into the cone entry as a narrow rectangle to minimizes turbulence in the upper section of the cone, allowing the solids to move quickly to the cone wall.
- Compact design with small footprint.
- Flexible fast connection are available for user friendly assembly.



(7) Mini Mud Cleaner



Model	GNZJ752-1S	GNZJ752-2S	GNZJ752-4N	GNZJ752-6N	GNZJ752-8N	GNZJ752-12N
Capacity	500GPM	1000GPM	200GPM	350GPM	500GPM	1000GPM
Desilter	N/A	N/A	4x4inch	6x4inch	8x4inch	12x4inch
Desander	1x10inch	2x10inch	N/A	N/A	N/A	N/A
Feed Pump	30/37Kw	45/55Kw	11Kw/15Kw	22Kw	30/37Kw	45/55Kw
Separation	40-75Microns		15-25Microns			
Screen Size	API 120		API 150			
Shaker	GNZS752		GNZS752			
Dimension	1650x1260x1720mm		1650x1260x1623mm			
Weight	900Kg	960Kg	960Kg	975Kg	990Kg	1022Kg

GNZS752 Linear Motion Shaker Specifications

Model	Capacity	Motor	Screen Area	Screen Qty	G Force	Deck Adjustment
GNZS752	200GPM	2x0.75kw	1.4 m ²	2 Panel	7.5	2°

Remarks:

- 1) Treating capacity test from mud: 1.2g/cm³ density & viscosity 45s & API 40.
- 2) Overall Shaker Dimension: 1650x1260x1077mm(Top Buffer Box) Weight: 750 Kg.

Features & Benefits:

The GN Mini Linear Motion Mud Cleaner is innovative products for drilling fluids cleaning. The traditional desander desilter without Shale Shaker is only available for unweighted drilling mud. The traditional mud cleaner is oversized for some applications, and the mud cleaner is relatively more expensive. The innovative GN Mini cleaner is an ideal option for both weighted and unweighted drilling mud with the most cost effective solution for drilling. Further more, the GN Mini Cleaner is the best choices for small mud system for HDD, CBM, water well drilling, mining exploration industry etc.



(8) Decanter Centrifuge



Model	GNLW452S (Fixed)	GNLW363G (Fixed) GNLW363VFD (VFD)	GNLW553G (Fixed) GNLW553VFD (VFD)
Bowl Diameter	450mm (18inch)	360mm(14inch)	550mm(22inch)
Bowl Length	1100mm (43inch)	1270mm(50inch)	1800mm(71inch)
Max Capacity	250GPM(57m³/h)	200GPM(45m³/h)	500GPM(110m³/h)
Normal Capacity	176GPM(40m³/h)	132GPM(30m³/h)	400GPM(90m³/h)
Bowl Speed(Max)	2500RPM	3900RPM	3000RPM
Bowl Speed(Typical)	2200RPM	3200RPM	2500RPM
Bowl Speed(VFD)	N/A	0-3200RPM	0-2500RPM
G-Force (Max)	1574	3063	2770
Separation point	5-7 Microns	2-5 Microns	2-5 Microns
Main Drive	45Kw(60hp)	37Kw(50hp)	90Kw(120hp)
Back Drive	15Kw(20hp)	11Kw(15hp)	37Kw(50Hp)
Remarks	For fixed speed centrifuge, GN have other speed available for your option by using different pulley, please specify your required speed.		

Features of Benefits

- Southwest Petroleum University Technology Support
- Big bowl Big Volume ,high G force available
- The main body including the collection box is made from stainless steel
- The screw propeller made from stainless steel welded with tungsten alloy tile or coated with ceramics as option.
- Solids Discharge port protected by replaceable tungsten carbon alloy ring or ceramics.
- German FAG or Sweden SKF Brand Bearings
- Electrical Components: SIEMENS/Schneider ATEX or IEC Ex for option.
- There are 3 overload safety protection, one is the safety protection device of the gear box, second is the hydraulic coupler overload protection, third is the control panel with over currency protection.
- Screw pump & Centrifugal pump feeding pump option available to meet different application.



(8) Decanter Centrifuge



Model Option	GNLW223G (Fixed) GNLW223VFD (VFD)	GNLW453G (Fixed) GNLW453G (VFD)
Bowl Diameter	220mm	450mm(18inch)
Bowl Length	660mm	1580mm(62inch)
Max Capacity	150Liters/Min	350GPM(80m³/h)
Normal Capacity	100Liters/Min	260GPM(60m³/h)
Bowl Speed(Max)	4000RPM	3500RPM
Bowl Speed(Typical)	3800RPM	3000RPM
Bowl Speed(VFD)	0-3800RPM	0-3000RPM
G-Force (Max)	1970	3084
Separation point	2-5Micron	2-5Micron
Main Drive	11kw(15HP)	55Kw(75hp)
Back Drive	N/A	22Kw(30hp)
Remarks	For fixed speed centrifuge, GN have other speed available for your option by using different pulley, please specify your required speed.	



(9) Vertical Cutting Dryer



Model	GNCD930
Feed Capacity	30~50Tons/H
Max Bowl Diameter	930mm
Screen Opening	250/350/500 Microns
Rotary Speed	890rpm
Main Motor	55kw
Oil Pump Motor	0.55kw
Voltage	380V/50HZ or 460V/60HZ or Customized
Dryness Efficiency	<5%
Motor & Electrical	Explosion Proof, IEC Ex & ATEX for option
Dimension	2780x2080x2450mm
Weight	4500Kg

Features & Benefits

Up to 2011, GN Solids Control is the only one API & ISO certified manufacturer for the vertical cutting dryer in China.

The GN Vertical Cutting Dryer uses centrifugal force to dry drilled solids in oil or synthetic base fluids. A stainless steel screen bowl traps “wet” solids and accelerates them up 890 RPM. Liquid is forced through the screen bowl openings, while “dry” solids are extracted by the angled flights attached to the cone, which rotate slightly slower than the bowl. Tungsten carbide protects the flights from abrasive solids and ensures long operational life. This aids in maintaining a constant gap between the scroll and screen bowl, which is crucial for proper operation. GN cutting dryer has been done strict balance testing for all major rotary components to minimize vibration & noisy

GN Vertical Cutting Dryer fixed with individual oil lubrication system with automatic alarm for pressure limit. The main motor and oil pump motor is interlocked with each other for avoiding the start of the main motor prior to the start of the oil pump motor.



(10) Jet Mud Mixer

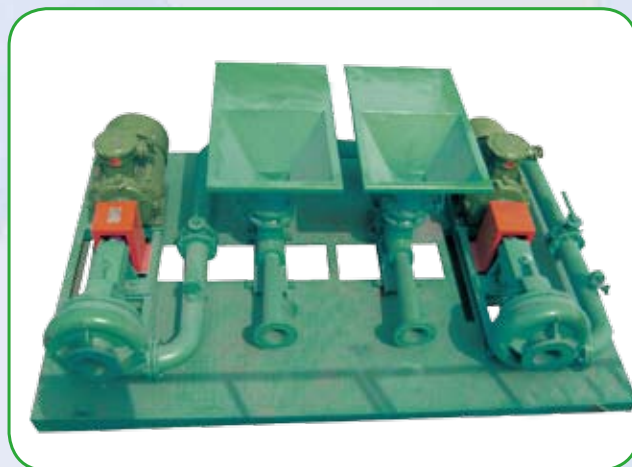


Model	GNSL150-45S	GNSL150-35S	GNSL100-25S	GNSL100-25M
Matching Pump	GNSB8×6 with 55kw Or 75Kw Motor	GNSB6×5 with 45kw Or 37Kw Or 30Kw	GNSB5×4 with 22kw Motor	GNSB4×3 with 15kw Or 11Kw Motor
Max Capacity	300m ³ /h(1320GPM)	200m ³ /h(880GPM)	90m ³ /h(400GPM)	60m ³ /h(264GPM)
Pressure	0.25~0.40Mpa	0.25~0.40Mpa	0.25~0.40Mpa	0.25~0.40Mpa
Inlet	150mm	150mm	100mm	100mm
Nozzle caliber	45mm	35mm	25mm	25mm
Hopper dimension	600×600mm	600×600mm	500×500mm	500×500mm
Burden speed	≤100kg/min	≤80kg/min	≤60kg/min	≤40kg/min
Density	≤2.8g/cm ³	≤2.4g/cm ³	≤2.0g/cm ³	≤1.5g/cm ³
Viscosity	≤120s	≤120s	≤80s	≤60s
Dimension	2200×1700×1200mm	2200×1700×1200mm	2000×1650×1100mm	1800×1600×1000mm
Weight	1680/1590Kg	1400/1380Kg	1280/1200Kg	1100/1080Kg

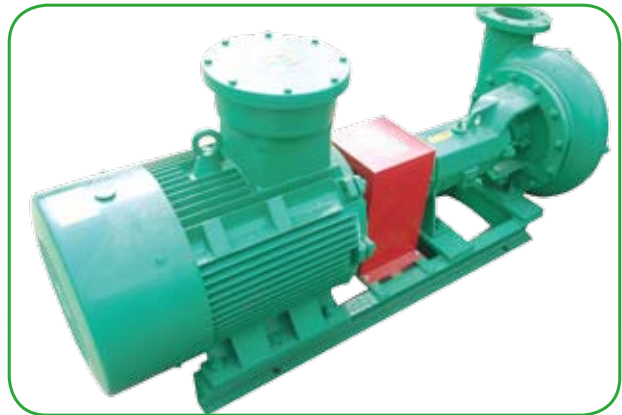
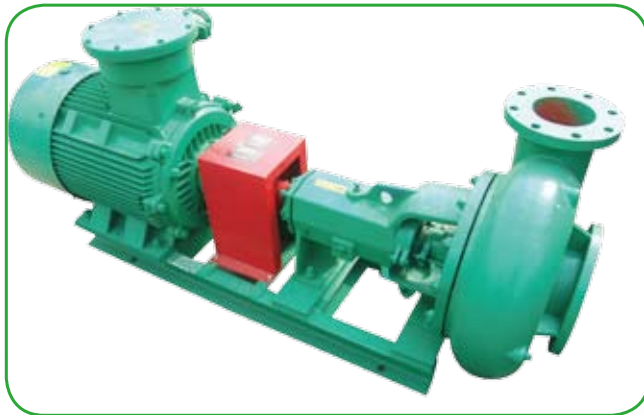
Features of Benefits

GN has a complete line of mud mixing equipment designed to assist operators with the greatest available efficiency in blending. Bentonite, polymers and other powder additives have traditionally been added to assist in achieving the properties needed from drilling mud such as viscosity for hole cleaning, water loss control and filter cake build up. On weighted mud applications, the ability to handle Barite during potential blow-out applications is even more important.

GN Jet mud mixer consist of mechanical seal mixing pump and venturi mixers, If it is used with shearing pump together, the effect will be more excellent, it can be designed as double jet mud mixer according to customers' requirements. And installation for the mixing pump and mixers are flexible from GN, either on a single skid or at tank end skid or even separately with hopper on tank top, and pump at tank side. All flexible design is to make the complete mud system to be compact and user friendly.



(11) Centrifugal Pump

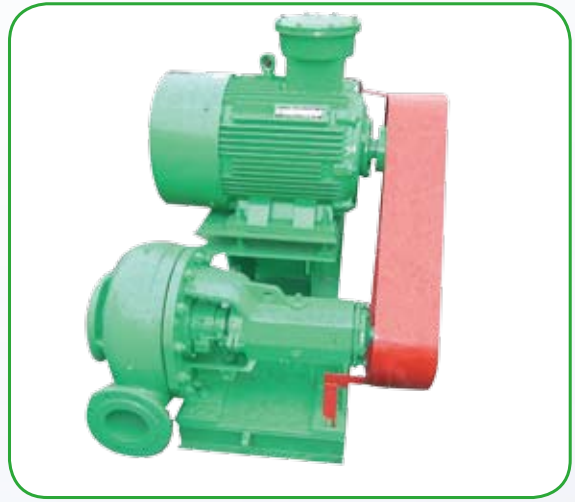
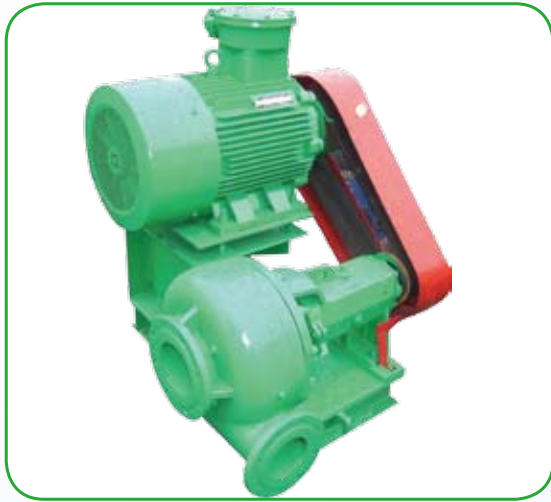


Model	Flow	Lift	Power	Speed	Impeller Size
GNSB3×2-11J	20m ³ /h	23m	5.5KW	1450r/min	11 inch
GNSB3×2-10J	88GPM	75ft	7.5HP	1750r/min	10 inch
GNSB3×2-12J	25m ³ /h	30m	7.5KW	1450r/min	12 inch
GNSB3×2-11J	110GPM	98ft	10HP	1750r/min	11 inch
GNSB4×3-11J	45m ³ /h	25m	11KW	1450r/min	11 inch
GNSB4×3-9.5J	200GPM	82ft	15hp	1750r/min	9½ inch
GNSB4×3-12J	55 m ³ /h	28m	15KW	1450r/min	12 inch
GNSB4×3-10J	242GPM	91ft	20HP	1750r/min	10 inch
GNSB4×3-13J	65m ³ /h	35m	18.5KW	1450r/min	13 inch
GNSB4×3-12J	286GPM	114ft	25HP	1750r/min	12 inch
GNSB5×4-12J	90m ³ /h	30m	22KW	1450r/min	12 inch
GNSB5×4-10J	400GPM	98ft	30HP	1750r/min	10 inch
GNSB5×4-13J	120m ³ /h	35m	30KW	1450r/min	13 inch
GNSB5×4-11J	528GPM	114ft	40HP	1750r/min	11 inch
GNSB6×5-12J	150m ³ /h	30m	37KW	1450r/min	12 inch
GNSB6×5-9.5J	660GPM	98ft	50HP	1750r/min	9½ inch
GNSB6×5-13J	200m ³ /h	35m	45KW	1450r/min	13 inch
GNSB6×5-10J	880GPM	114ft	60HP	1750r/min	10 inch
GNSB8×6-13J	272m ³ /h	35 m	55KW	1450r/min	13 inch
GNSB8×6-11J	1200GPM	114ft	75HP	1750r/min	11 inch
GNSB8×6-14J	320m ³ /h	35m	75KW	1450r/min	14 inch
GNSB8×6-12J	1400GPM	114ft	100HP	1750r/min	12 inch

GN SB Series Centrifugal pump is used for transferring drilling mud. It can be used as feeding pump for desander, desilter, or used as mixing pump for Jet Mud Mixer. Also it can be used as trip pump, and supercharging pump for rig mud pump. All GN model centrifugal pumps use tungsten carbide mechanical seal, with famous brand Bearing. And spare parts interchangeable with most of the international Brand pump which helps customer to source spare parts easily. Open impeller design that lowers axial thrust loads, and make it easier for installation, repair and maintenance.



(12) Shear Pump



Model	Flow	Lift	Power	Speed	Dimension	Weight
GNJQB6545	120m ³ /h	45m	55KW	1450RPM	1040x915x1280mm	980kg
GNJQB6535	100m ³ /h	35m	37KW	1450RPM	1040x915x1280mm	800kg

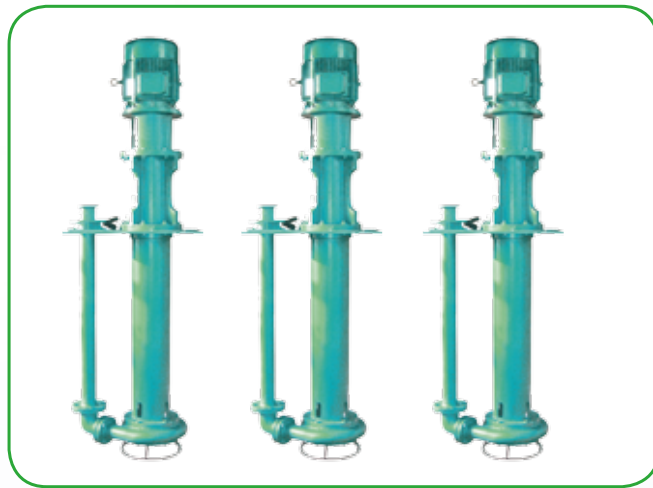
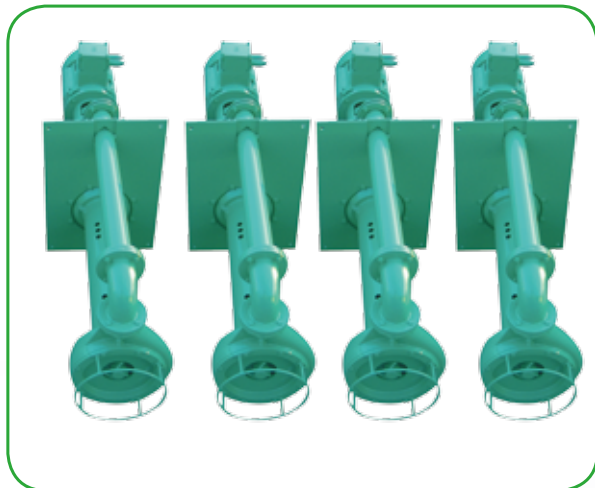
Features of Benefits

The GN shear pump reduces the cost of mixing polymers and clays while improving mud properties. Shearing the polymers eliminates fish eyes and prevents polymer chaining (long strings), which cannot pass through the shaker screens. The GN shear pump is available as a belt-driven or diesel-driven package including a hopper, mud gun, and transfer line orifice plate. A complete system with skid, tanks, and piping are also available.

GN Shear Pump impeller is specially designed to have a wider flow pass and smooth vanes, with larger flow area and smooth fluid pass, making the shear pump reach the internationally advanced level in shear pump efficiency and energy-saving, 10% higher than similar products. The shear pump has adopted a shell thicker than normal one, with rational pass and less turbulence.

GN Shear pump Impeller and shell are made of high wear resistant cast irons, with longer servicing life. The shear pump shaft has high strength that can bear certain load, reducing shafts deflection and extending seals service life; The shaft is lubricated with lubricants and lubricating grease and the oil seal is made of special structure and materials, suitable for high and low temperatures and complicated environment; Front opening structure is used for convenient installation, repair and maintenance.

(13) Submersible Slurry Pump

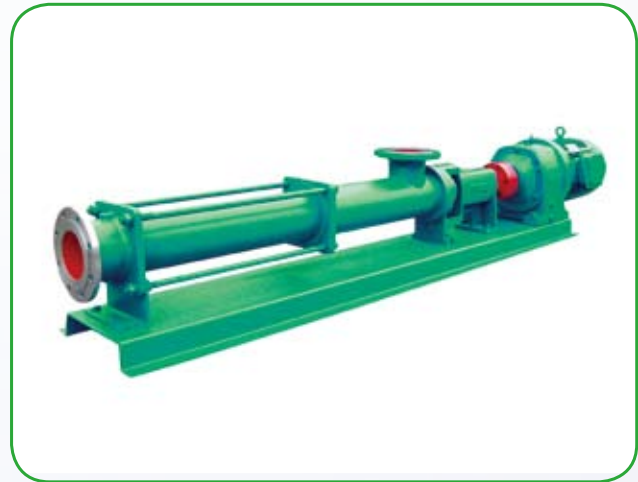
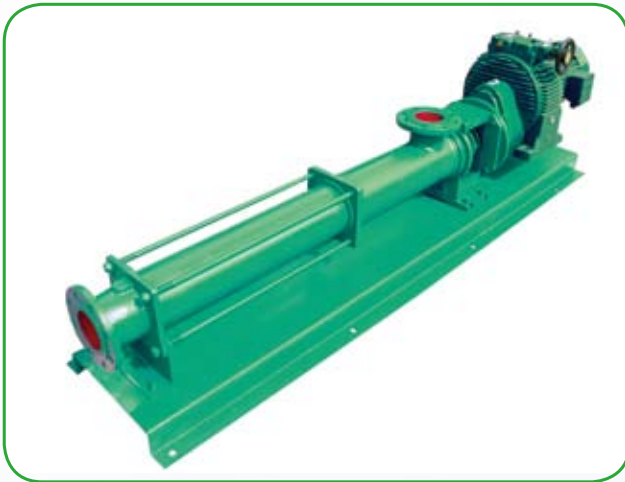


Model	Flow	Lift	Speed	Efficiency	Match motor
	m ³ /h	(m)	(rpm)	(%)	(Kw)
50YZ20-18	20	18	1450	42%	3
50YZ40-10	40	10.5	1450	47%	4
50YZ50-12	60	10.8	1450	55%	5.5
80YZ50-20	60	18	1450	48%	7.5
80YZ80-20B	80	13.4	1450	51%	7.5
80YZ80-20A	90	15	1450	51%	11
100YZ100-30A	110	24	1450	54%	18.5
100YZ100-30	100	31	1450	54%	22
	120	28	1450	56%	
100YZ160-38B	164	26	1450	50%	30
150YZ250-40B	240	24	1450	50%	37
150YZ250-40A	270	30	1450	51%	45

Features of Benefits

GN YZ Series Submersible slurry pump is with structure of vertical single stage and single suction system overhung centrifugal pump, it is made of abrasion-resistant alloy, it can transfer medium with high concentration particle. The normal submersible length is 1.3m/1.5m, customized length is available. There is no bearing and Gland Seal between impeller and pump body, so the slurry pump is maintenance-free and high temperature resistance, the slurry pump is the ideal centrifugal pump for feeding to decanter centrifuge, and feeding from mud pit for to the shale shakers on the mud system, it can also be used as feeding pump for desander and desilter.

(14) Screw Pump



Model	Flow	Pressure	Max Speed	Motor	Inlet	Outlet
GNG20-5.5	20m ³ /h	3 Bar	210RPM	5.5Kw	80mm	80mm
GNG30-7.5	30m ³ /h	3 Bar	258RPM	7.5Kw	100mm	100mm
GNG40-11	40m ³ /h	3 Bar	252RPM	11Kw	125mm	125mm
GNG50-11	50m ³ /h	3 Bar	273RPM	11Kw	125mm	125mm
GNG60-15	60m ³ /h	3 Bar	225RPM	15Kw	125mm	125mm
GNG70-22	70m ³ /h	3 Bar	230RPM	22Kw	150mm	150mm
GNG80-22	80m ³ /h	3 Bar	283RPM	22Kw	150mm	150mm
GNG90-22	90m ³ /h	3 Bar	205RPM	22Kw	150mm	150mm

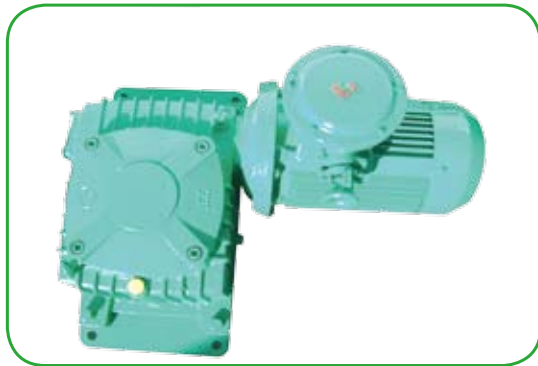
Features & Benefits

The single screw 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, GN Screw 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 screw 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

(15) Mud Agitator

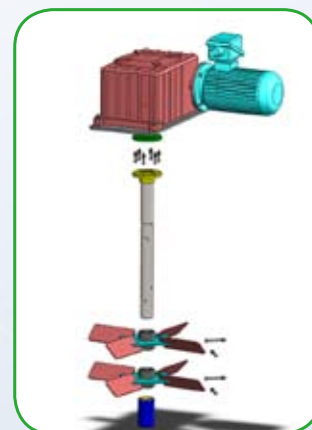


Agitator Model	GNJBQ5.5	GNJBQ7.5	GNJBQ11	GNJBQ15
Motor Power	5.5KW	7.5KW	11KW	15KW
Impeller Speed	60/72RPM	60/72RPM	60/72RPM	60/72RPM
Impeller Dia Single(Standard)	850mm	950mm	1050mm	1200mm
Impeller Dia Double(Standard)	N/A	Up:800mm Down:800mm	Up:850mm Down:850mm	Up:950mm Down:950mm
Ration	25:1	25:1	25:1	25:1
Dimension	870x600x560mm	906x600x560mm	1075x650x630mm	1170x720x685mm
Electric Specs	380V/50Hz or 460V/60Hz Or Customized			
Shaft Length	According to tank inner depth			
Remarks	Explosion Proof Motor, Shaft Stabilizer Available Customized Impeller Diameter Available			

GN mud agitator mix the suspend the solids using both axial and radial flows, and by utilizing low shear mixers to suspend and mix mud additives particle size degradation and polymer shear. Unlike centrifugal pumps or mud guns. The GN Mud Agitator is relatively low shear and low energy device, so it's easy to operate and inexpensive to maintain. This will ensure that mud additives are homogeneously mixed to prevent dead spots. Agitators will keep the active mud system flowing even when the pumps are disengaged and keep the weighting agents in suspension.

FEATURES OF GN MUD AGITATOR:

- Compact design. Quiet, smooth, vibration free.
- Durable, single reduction worm gear drive.
- Fewer moving parts, less maintenance.
- Direct, flexi-couple drive system.
- C-Face Explosion proof electrical motor. ATEX, IEC Ex, and Marine Motors area available for option
- GN Special designed impeller completely made from casting to have better mixing performance.



(16) Mud Gun



Model	GNNJQ50-3G	GNNJQ50-3X	GNNJQ80-3X	GNNJQ80-3G
Diameter	2inch	2inch	3inch	3inch
Valve ID	50mm	50mm	80mm	80mm
Interface size	2"	3"	3"	3"
Work pressure	$\leq 3.2\text{Mpa}$			
Nozzle number	3	3	3	3
Rotation angle	N/A	120°	120°	N/A
Matching Valves	Gate Valve and Butterfly Valve for option			

Mud guns are meant to provide supplemental or primary mixing in mud tanks depending on the number being used and the pit size. They are best used in tank corners to keep solids from settling and a mud agitator is placed in the tank center. The mud gun in the mud system is also used for transfer mud from compartment to compartment, like for trip tank compartment. GN Mud Guns are available for rotation adjustment to allow the operator to optimize the mud guns performance. The replaceable wear resistant jet nozzle is used, which is special design with better shearing.



(17) Mud Gas Separator



Model	GNZYQ1000G
Main Body Diameter	1000mm
Wall Thickness	10mm
Capacity	240~320m ³ /h
Inlet Pipe	4"
Output Pipe	10"
Gas Discharge Pipe	8"
Weight	2000kg
Dimensions	2000×2000×5860mm
Height Adjustable	N/A

GN Mud Gas Separator is designed for continued drilling in underbalanced conditions where dramatic pressure surges are normal. The GN Mud Gas Separator is manufactured according to API and ISO Standard.

In dangerous “kick” conditions, the Mud Gas Separator allows operators to circulate the drilling fluid by removing large pockets of gas. The gas cut mud enters the flow line of the unit, where it hits a series of baffle plates. These baffle plates provide surface area for the dispersion of the gas cut mud. The mud is routed to solids control equipment for further processing while the separated gas travels to the flare line at the top of the unit to be vented at a safe distance from the rig and rig personnel.

(18) Flare Ignition Device



Model	GN YD-20/3000
Nameplate diameter of burner (torch):	DN200mm
Burner height:	3m
Power supply type	DC or AC
AC input voltage	220V
Ignition voltage	16KV
Ignition frequency	100~1000 Times/Minute
Built-in storage battery type	JP-HSE-5-6
Dimension	1610×600×3200mm
Weight	400kg

Features and Benefits

The GN Flare Ignition Device is used for connecting to the gas discharge line of Mud Gas Separator, which fire the dangerous gas from the drilling mud like H₂S. GN Manufacture the flare ignition device according to API & ISO standard, which meet most of the oil industry applications.

The upper part of the flare ignition system is stainless steel, and it is designed for rain proof in the oilfield. The major components for the electrics are from famous Brand like SIEMENS or Schneider. The power for the electric can be directly from industry normal power, or users can charge the battery and take the unit for remote areas application. GN flare device is with remote control, and PLC is optional available for less manpower notice for continually and automatically working.



(19) Tanks



GN can design and manufacture mud tank, water tank and oil tank of both vertical and horizontal type according to API & ISO standard. GN usually use the corrugated wall to make the side wall stronger. The normal horizontal mud tank are usually three runner oilfield design with skid for easy movement. GN normally will fix ISO Standard Container port for easy lifting on the tank Top. Walkways, Stairs, and Manholes are covered with galvanized gratings. The steel GN firstly do sand blast treatment, and painting & coating we use Japan Kansai Brand Epoxy zinc rich for prime, thickness 75 μ , epoxy medium twice, thickness 250 μ , polyurethane finish paint twice, thickness 70 μ for outside tank. And 2 layers as above for inside tank.

(20) Screw Conveyor (Auger)



Model	Trough Diameter	Screw Length	Motor Size	Transfer Capacity	Rotation Speed
GNSC14-24	14inch	24feet	7.5Kw(10HP)	30ton/H	40/50/60RPM
GNSC14-36	14inch	36feet	11Kw(15HP)	40ton/H	40/50/60RPM
GNSC14-48	14inch	48feet	15Kw(20HP)	50ton/H	40/50/60RPM
GNSC18-24	18inch	24feet	11Kw(15HP)	40ton/H	40/50/60RPM
GNSC18-36	18inch	36feet	15Kw(20HP)	50ton/H	40/50/60RPM
GNSC18-48	18inch	48feet	22Kw(30HP)	60ton/H	40/50/60RPM

Features & Benefits

GN Solids utilize a custom designed and constructed Screw Conveyor (Auger) as part of drilling waste management system. The Auger is designed with 12 feet per section which makes it to be standard spare parts for exchange with each other. The screw material utilized by GN is abrasive material which lasts longer than our competitors. The Screw Conveyor (Auger) is designed to offer an efficient, low cost, cuttings transport system for offshore and onshore drilling installations. The screw conveyor are manufactured to the highest safety standards and are fitted with protective grating or cover to prevent foreign bodies entering the conveyor system, and to offer enhanced safety for all personnel.

Part 3: GN Products Recent Applications

(1) OIL&GAS Drilling——Solids Control System

GN manufacture complete equipments for Oil & Gas Drilling Rig for :250HP,350HP,450HP,550HP, 650HP,750HP,1000HP,1500HP,2000HP,3000HP



(2) HDD & CBM Drilling—Mud Recycling System

GN manufacture complete equipment for HDD (Horizontal Directional Drilling) and CBM(Coal Bed Methane) and water well, mining and geothermal well drilling mud recycling system of : 150GPM / 350GPM / 500GPM / 1000GPM / 1500GPM /2000GPM.



(3) Mining & Industrial——Slurry Separation Plant

GN design and manufacture separation equipment and system for Mining slurry, TBM (Micro tunneling) and dredging slurry separation and other industrial slurry separation.



1) Dredging Slurry Separation System



2) 1000GPM Dredging Slurry Separation System



3) TBM Slurry Separation Plant



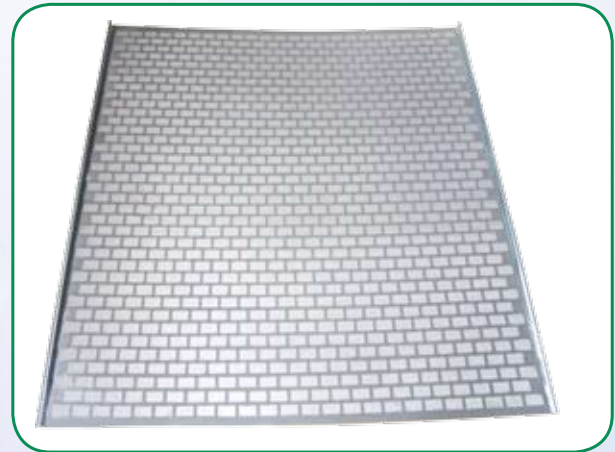
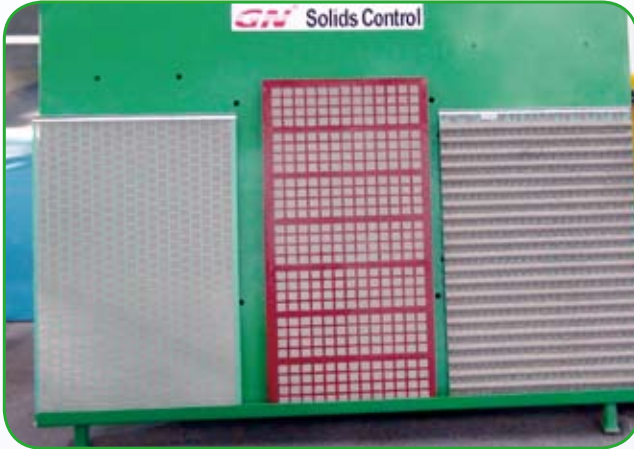
4) Mining slurry separation



5) TBM slurry separation Plant

Part 4: Shaker Screens & Hydrocyclones

GN adopt the international most advanced technology to manufacture all kinds of shale shaker screens. GN also supply replaceable screens for all the popular Brand shale shakers. As an API certified manufacturer, GN have screens from API 20 to API 500.



Contact Us



(Mud Solids Control & Waste Management)

Beijing Headquarter: Hebei GN Solids Control Co.Ltd

Address: Chaobai River Development Area, Langfang, China

Tel: +86-316-5276988 +86-316-5276989

Fax: +86-315-5276990 +86-315-5276997

Email: sales@gnsolidscontrol.com

Alternative Email: sales@gnsolidscontrol.co

Website: <http://www.gnsolidscontrol.com> / www.gnsolids.com

Division Factory: Tangshan Guanneng Machinery Equipment Co.Ltd

- GN Global (English)

<http://www.gnsolidscontrol.com> / www.gnsolids.com

- GN China (Chinese)

<http://www.gngukong.com> / <http://www.tsgnjx.com>

- GN Russia (Russian)

<http://www.gnsolidscontrol.ru>

- GN Australia (English)

<http://www.gnsolidsaustralia.com>

- GN South America (Spanish)

<http://www.gnsolidsamerica.com>

- GN Middle East (Arabic)

<http://www.gnsolidsarabic.com>