



Expert in Mud Recycling and Treatment



Xi' An TianRui Petroleum Machinery Equipment Co.,Ltd.

# Company profile

## Company Profile

Xi'an TianRui Petroleum Machinery Equipment Co., Ltd (Short name: TR Solids Control ) is a solid control equipment manufacturer combined with R&D, sales and service. Main product includes shale shaker, desander, desilter, mud cleaner, decanter centrifuge, centrifugal pump, mud agitator, mud gas separator, flare ignition device, vertical cutting dryer; solid control system; HDD trenchless & TBM mud recycling system; drilling waste management.

1. API approved solid control manufacturer;
2. Manufacturing the most advanced BEM & linear integrated shale shaker, balanced elliptical motion shaker, linear motion shaker;
3. CNPC material supplier;
4. Exported to over 40 countries and regions;
5. Obtain several honor of "Contract Credit Unit";
6. Acquire five star honor of Shaanxi Quality Supervision Bureau.

## Main Application Field

Oil & Gas drilling, Tunnelling Construction, Horizontal Directional Drilling, Coal-Bed Methane System, Bored Piling Project.

## Company Tenet

Customer's satisfaction is highest pursuit of TR Solids Control.



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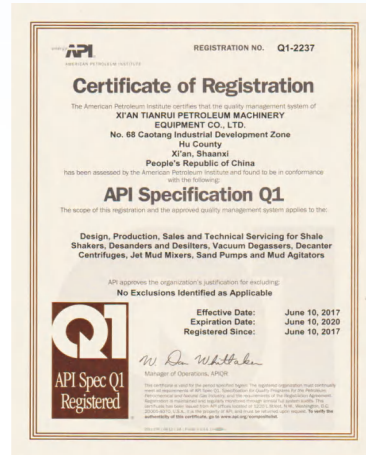
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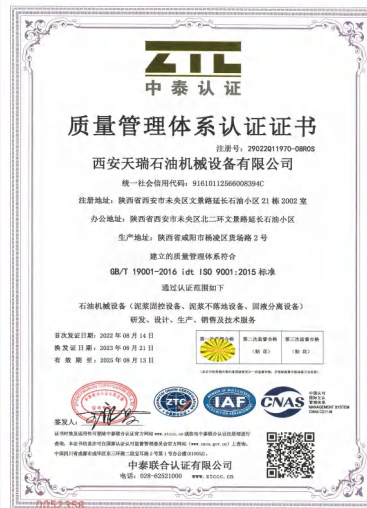
# TR Qualification



ISO 9001:2008



API Q1



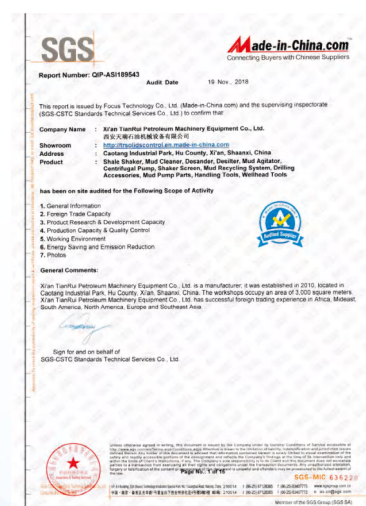
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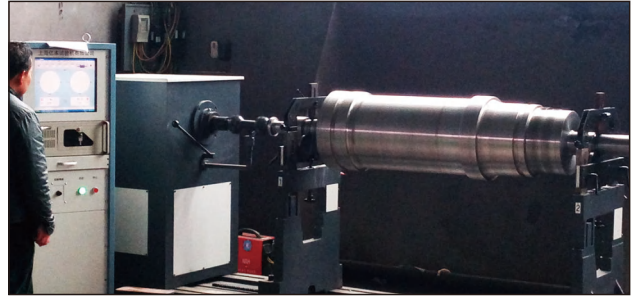


SGS认证

## Process Capability



Lathe Advanced Cnc Lathe



Dynamic Balancing Machine



Rockerarm Drilling Machine



Numerical-control Cutter



Shearing Machine



Bending Machine



Screen Processing Workshop



Centrifuge Cone Drill



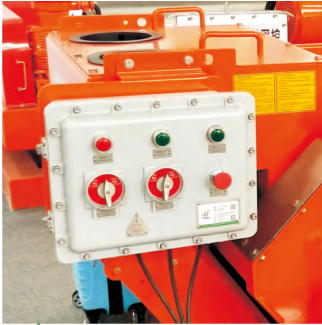
## Dual Motion Shale Shaker



Model	TRPZS584	TRPZS583
Vibration Motion	Dual Motion	Dual Motion
Treatment Capacity	140m <sup>3</sup> /h	110m <sup>3</sup> /h
Motor Power	1.72kw+1.72kw+0.75kw	1.5kw+1.5kw+0.4kw
Screen Specs	(585x1165mm)x4	(585x1165mm)x3
Screen Area	2.7m <sup>2</sup>	2.0m <sup>2</sup>
Vibration Strength	<8.5G	<8.5G
Double Amplitude	7mm	7mm
Deck Adjustment	-3°~+3°	-3°~+3°
Ex Standard	ExdIIBt4 /IECEX/A-TEX	ExdIIBt4 /IECEX/A-TEX
Weight	1700kg	1500kg
Dimension	2600x1645x1380mm	2100x1645x1380mm



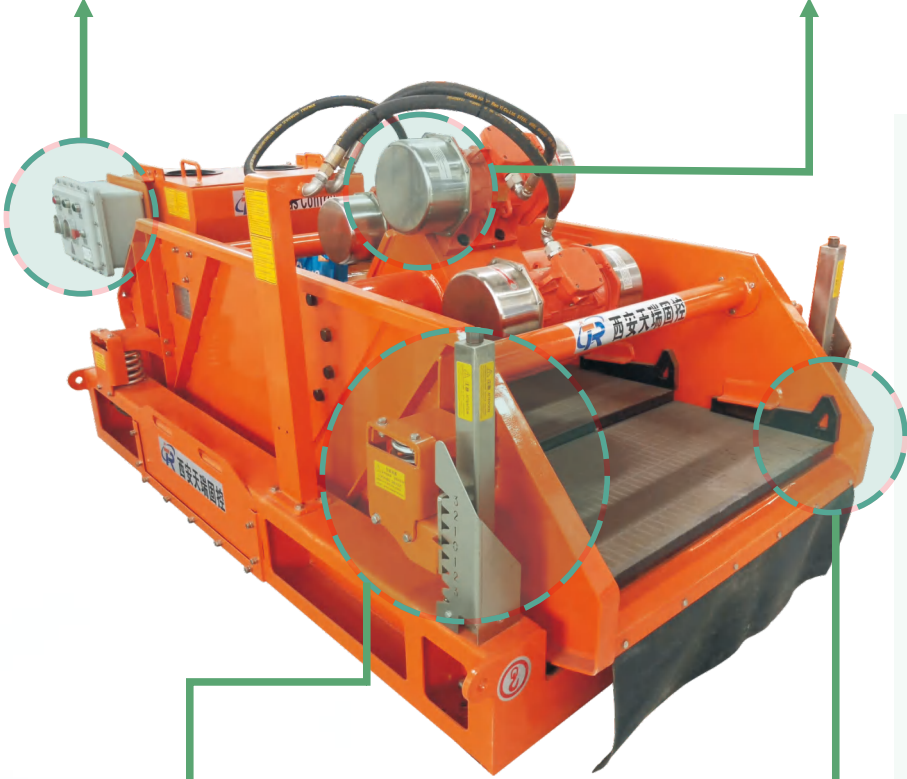
# Features And Benefits



Explosion-proof control cabinet with Siemens/Schneider components.



The three-vibrator design enables flexible trajectory adjustment while minimizing wear



1) Heavy-duty construction with vibration intensity up to 8.5g for various working conditions.

2) Pre-tensioned composite screen frame with 2-3x longer service life.

3) Effective seal between screen frame and mesh to prevent sand leakage.



The screen angle is mechanically adjustable during operation, ensuring stable performance. Quick-release screen basket clamp



The wedge block system enables rapid installation/removal, cuts downtime, and provides a flat, long-lasting screen surface.



## Vacuum Shale Shaker



Model	TRViST-584J	TRViST-585J
Screen Specs	( 585x1165mm ) x4	( 585x1165mm ) x5
Screen Area	2.7m <sup>2</sup>	3.4m <sup>2</sup>
Motor Power	1.865kwX2	
Blower Power	4kw	
Vibration Strength	≤7.5G	
Anti-Spraying	SS Anti-spraying unit (optional)	
Vibrate Motion	Lincar/ Dual Motion (optional)	
Negative Pressure	Continuous negative pressure	
Extra Drilling Mud Recovery	2-3m <sup>3</sup> /2000-3000L/Day (average value when the vacuum is open)	
Suitable Mud	OBM, WBM, SBM	
Ex Standard	ExdIIBt4	

### Advantages of vacuum shale shaker

1. It can be used for the treatment of oil-based mud (OBM), water-based mud (WBM), and synthetic-based mud (SBM).
2. It is suitable for onshore and offshore drilling rigs, improving the working efficiency of shale shakers in solid control equipment, recovering drilling fluid, and reducing the amount of waste.
3. It can replace the treatment of cuttings drying shakers with lower cost.
4. It requires almost no additional floor space, meeting the space requirements of offshore platforms.
5. TR Solidscontrol can provide new shale shakers equipped with ViST vacuum screen devices, and also install negative pressure screen devices on customers' existing shale shakers, with simple and fast installation.
6. After matching with the ViST vacuum negative pressure shale shaker, the solid control shale shaker can be equipped with a higher mesh screen without Fluid Bypass, thereby improving the separation efficiency of solid control equipment.
7. The discharged cuttings are drier, which can reduce the transportation and treatment costs of drilling waste.



## Shale Shaker



Model	TRPS584	TRZS584	TRZS703	TRZS585	TRZS752
Vibration Motion	Balanced Elliptical Motion	Linear Motion			
Treatment Capacity	140m <sup>3</sup> /h	130m <sup>3</sup> /h	120m <sup>3</sup> /h	150m <sup>3</sup> /h	60m <sup>3</sup> /h
Motor Power	1.94+1.0kw	1.5kw × 2	1.5kw × 2	1.94kw × 2	0.75kw × 2
Screen Specs.	( 585 × 1165mm ) × 4	( 585 × 1165mm ) × 4	( 700 × 1250mm ) × 3	( 585 × 1165mm ) × 5	( 750 × 900mm ) × 2
Screen Area	2.7m <sup>2</sup>	2.7m <sup>2</sup>	2.6m <sup>2</sup>	3.4m <sup>2</sup>	1.4m <sup>2</sup>
Vibration Strength	≤7.1G	≤7.1G	≤7.1G	≤7.1G	≤7.1G
Double Amplitude	7mm	7mm	6mm	6mm	5mm
Adjustment Angle	-1° ~ +5°	-1° ~ +5°	-1° ~ +5°	-1° ~ +5°	+3°
Ex Standard	ExdIIbt4 / IECEX / A-TEX				
Weight	1618kg	1618kg	1620kg	2000kg	900kg
Dimension	2966 × 1600 × 1280mm	2966 × 1600 × 1280mm	2770 × 1785 × 1690mm	3600 × 1600 × 1280mm	1835 × 1280 × 1200mm
Remark	Above data are tested from the drilling mud with viscosity 45s, and specific gravity 1.2g/cm <sup>3</sup> .				

### Features and Benefits

1. Alloy steel material;
2. Martin or OLI vibration motor;
3. Whole heat treatment, heavy anticorrosion coating;
4. Vibration strength 7.5G;
5. Vibration strength is adjustable;
6. Wedge block of shaker screen is fixed;
7. Cofferdam type hopper;
8. Schneider or Siemens electrical components.





## Drying Shaker



Model	TRPS584G	TRZS584G
Vibration Motion	Balanced Elliptical Motion	Linear Motion
Capacity	140m <sup>3</sup> /h	130m <sup>3</sup> /h
MotorPower	1.94kw +1.0kw	1.94kw × 2
Screen Specs	( 585 × 1165mm ) × 4	( 585 × 1165mm ) × 4
Screen Area	2.7m <sup>2</sup>	2.7m <sup>2</sup>
Vibration Strength	≤8.5G	≤8.5G
Double Amplitude	7mm	7mm
AdjustmentAngle	-3° ~ +3°	-3° ~ +3°
ExStandard	ExdIIBt4 / IECEX / A-TEX	
Weight	1618kg	1700kg
Dimension	2600 × 1645 × 1380mm	2600 × 1645 × 1480mm

### Features and Benefits

1. Its G-Force is as high as 8G and adjustable, enabling effective cuttings drying.
2. The mechanical synchronous screen box angle adjustment design allows screen box angle adjustment without shutdown.
3. The screen box undergoes overall heat treatment, meeting the requirement of long-term operation under High G-force.
4. It is equipped with a plate-type frame screen and a wedge-type screen pressing device, facilitating quick screen replacement.
5. It adopts international brand vibration motors such as Martin or OLI.
6. It uses internationally renowned brand electrical components such as Siemens or Schneider.
7. The Hopper-style feed design effectively reduces the feeding height, facilitating the feeding of the conveyor.



## Vertical Cutting Dryer



Model	TRCD930C	TRCD930B-VFD
Capacity(T/h)	30-50T/h	
Basket Max.Diameter	930mm	
BasketGap	0.25 ~ 0.5mm	
Rotary Speed	900r/min	0 ~ 900r/min
Air knife Airinlet Pressure	0.69 mpa	
Air Tool Air Supply	1.8m <sup>3</sup> /min	
FuelTank Volume	60L	
Main Motor Power(kW)	55kw	
Oil Pump Power(kW)	0.55kw	
Weight	5900kg	6000kg
Dimension	2750 × 2130 × 1800mm	

### Features and Benefits

1. With a rotation speed of up to 900rpm, it can generate a separation force of 420G, effectively separating the liquid from the cuttings.
2. The discharge scraper is made of high-chromium cast iron, featuring a long service life.
3. Equipped with a high-pressure air knife, it can effectively prevent the screen basket from clogging.
4. Each replaceable selection component has undergone dynamic balance testing to ensure the overall balance of the machine after replacement.
5. It is equipped with an independent oil circuit cooling system and a scientific oil tank cooling system, which can effectively meet the application requirements in high-temperature environments.





## Sludge Vacuum Pump

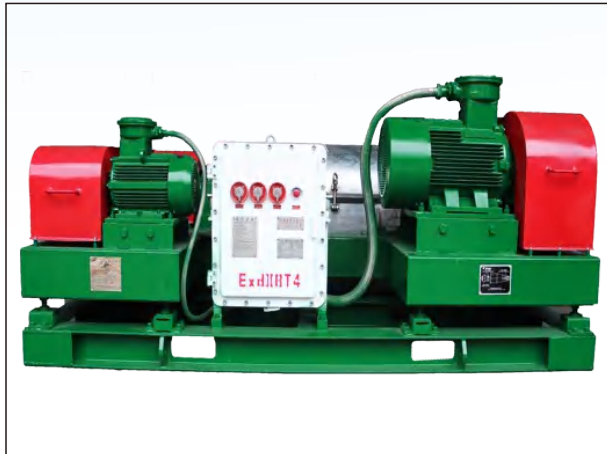


Model	TRSP-40L	TRSP-25W	TRSP-20L	TRSP-10L
Maximum throughput	40m <sup>3</sup> /h	25m <sup>3</sup> /h	20m <sup>3</sup> /h	10m <sup>3</sup> /h
Inlet/outlet diameter	4"DN100	3"DN80	3"DN80	3"DN80
Suction distance	≤50m	≤50m	≤50m	≤50m
Discharge distance	≤1000m	≤550m	≤550m	≤550m
Overflow diameter	≤70mm	≤50mm	≤50mm	≤50mm
Atmospheric pressure	650-800Kpa	550-700Kpa	550-700Kpa	550-700Kpa
Air supply	13m <sup>3</sup> /min	6.5m <sup>3</sup> /min	6.5m <sup>3</sup> /min	5.2m <sup>3</sup> /min
Dimension	1600×1500×2000mm	2000×1000×1100mm	1000×800×1400mm	900×800×1400mm
Weight	910kg	300kg	270kg	230kg

### Conveyed material category

1. Drilling waste mud and drilling cuttings discharged by vibrating screen
2. Jam, peanut butter, ketchup, pickles
3. Metal mine, coal mine mud and tail slurry
4. Material handling of bulk tanks and silos
5. Chemical, pharmaceutical granule powder transportation
6. HDD/TBM urban construction sludge
7. Sedimentation tank, soaking tank desilting
8. Recycling of toxic and hazardous waste
9. Storage tank sludge, tank bottom slag
10. Sand, fine sand and fracturing sand
11. Large-scale municipal pipeline desilting
12. Bilge cleaning of transport ships

## ▶ Decanter Centrifuge



Model	TRLW600B-1	TRLW450N-1	TRLW450N-2	TRLW355N-1	TRLW355NB-1
Bowl Diameter	600mm	450mm	450mm	355mm	355mm
Bowl Length	1500mm	1000mm	1250mm	1250mm	1250mm
Bowl Speed	2200r/min	2200r/min	3200r/min	3200r/min	0 ~ 3200r/min
Capacity	90m <sup>3</sup> /h	50m <sup>3</sup> /h	50m <sup>3</sup> /h	40m <sup>3</sup> /h	40m <sup>3</sup> /h
G-Force	1623	1217	2035	2035	0 ~ 2035
Separation point	5 ~ 7μm	5 ~ 7μm	2 ~ 5 μ m	2 ~ 5 μ m	2 ~ 7 μ m
Gear Box Speed	40r/min	40r/min	30r/min	30r/min	0-30r/min
Gear Box Ratio	35:1		57:1		
Main Motor Power	55kw	30kw	37kw	30kw	37kw
Auxiliary Motor Power	15kw	7.5kw	7.5kw	7.5kw	7.5kw
EX Standard	ExdIIBt4 / IECEX / A-TEX				
Weight	4800kg	2700kg	3200kg	2900kg	3200kg
Dimension	2900 × 1900 × 1750mm	2600 × 1860 × 1750mm	2600 × 1860 × 1750mm	2600 × 1620 × 1750mm	2600 × 1620 × 1750mm

### Features and Benefits

- 1.The straight and conical sections of the drum are made of 2205 duplex stainless steel via centrifugal casting.
- 2.Other components of the drum assembly are made of SS316L stainless steel.
- 3.The screw conveyor is protected with YG6 wear-resistant alloy tiles, ensuring long service life and easy maintenance or replacement.
- 4.The conveyor's distribution ports and the slag discharge port of the drum are protected with replaceable wear-resistant alloy sleeves, extending service life and maintenance intervals.



5. The drum assembly is protected by a detachable support frame during transportation to prevent damage to the bearing during transportation.
6. The original imported SKF bearing and NSK bearing are selected to improve the stability of the equipment and the service life of the bearing.
7. Frequency conversion control is selected to facilitate customers to adjust the rotation speed at any time to meet the conditions of different working conditions.
8. The electrical components are made of Schneider or Siemens, and the dual protection of current overload protection and mechanical limit switch is selected.



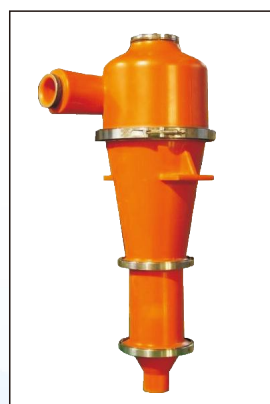
## Desander



Model	TRCS200-1S/2S	TRCS250-1S/2S	TRCS250-3S	TRCS300-1S/2S
Capacity	60m <sup>3</sup> /120m <sup>3</sup> /h	120m <sup>3</sup> /240m <sup>3</sup> /h	360m <sup>3</sup> /h	140m <sup>3</sup> /280m <sup>3</sup> /h
Cyclone Specs	8in	10in	10in	12in
Cyclone Qty	1nos/2nos	1nos/2nos	3nos	1nos/2nos
Working Pressure	0.25 ~ 0.4mpa			
Inlet Size	DN125mm	DN150mm	DN150mm	DN150mm
Outlet Size	DN150mm	DN200mm	DN200mm	DN200mm
Separation Point	45 μ m ~ 75 μ m			
Bottom Shaker	TRTS60/N/A	TRTS60/N/A	TRZS752/N/A	TRZS752/N/A
Dimension	1510 × 1160 × 2000mm	1510 × 1360 × 2250mm	1835 × 1230 × 1810mm	1835 × 1230 × 1810mm
Weight	570kg/620kg	670kg/760kg	1300kg	1380kg

### Features and Benefits

1. Pure polyurethane or high-chromium iron for cyclone.
2. Clamp connection for
3. Adopted international brand vibration motor, Martin or OLI motor.
4. We can install Derrick hydrocyclones.





## Desilter



Model	TRCN100-4N	TRCN100-6N/8N	TRCN100-12N/16N	TRCN100-20N
Capacity	60m <sup>3</sup>	90m <sup>3</sup> /120m <sup>3</sup>	180m <sup>3</sup> /240m <sup>3</sup>	300m <sup>3</sup>
Cyclone Specs	4in			
Cyclone Qty	4nos	6nos/8nos	12nos/16nos	20nos
Working Pressure	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa
Inlet Size	DN100mm	DN125mm	DN150mm	DN150mm
Outlet Size	DN125mm	DN150mm	DN200mm	DN200mm
Separation Point	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m
Bottom Shaker	TRZS60/N/A	TRZS60/N/A	TRZS752/N/A	TRZS703/N/A
Dimension	1510 × 1160X2000mm	1510 × 1360 × 2250mm	1835 × 1230 × 1810mm	2770 × 1785 × 1810mm
Weight	550kg	560kg/580kg	1150kg	1950kg
Remark	All the desilter could be customized without shaker			

### Features and Benefits

1. Pure polyurethane or high-chromium iron for cyclone .
2. Clamp connection for the installation of cyclone, easy to dismantle and replace.
3. Ball valve is installed at the inlet and outlet of cyclones, it is available to choose the cyclone number independently.
4. Adopted international brand vibration motor, Martin or OLI motor.
5. Mechanical type screen box is synchronous with lifting device.
6. We can install Derrick hydrocyclones.





5. The drum assembly is protected by a detachable support frame during transportation to prevent damage to the bearing during transportation.
6. The original imported SKF bearing and NSK bearing are selected to improve the stability of the equipment and the service life of the bearing.
7. Frequency conversion control is selected to facilitate customers to adjust the rotation speed at any time to meet the conditions of different working conditions.
8. The electrical components are made of Schneider or Siemens, and the dual protection of current overload protection and mechanical limit switch is selected.



## Desander



Model	TRCS200-1S/2S	TRCS250-1S/2S	TRCS250-3S	TRCS300-1S/2S
Capacity	60m <sup>3</sup> /120m <sup>3</sup> /h	120m <sup>3</sup> /240m <sup>3</sup> /h	360m <sup>3</sup> /h	140m <sup>3</sup> /280m <sup>3</sup> /h
CycloneSpecs	8in	10in	10in	12in
Cyclone Qty	1nos/2nos	1nos/2nos	3nos	1nos/2nos
Working Pressure	0.25 ~ 0.4mpa			
Inlet Size	DN125mm	DN150mm	DN150mm	DN150mm
Outlet Size	DN150mm	DN200mm	DN200mm	DN200mm
Separation Point	45 μ m ~ 75 μ m			
Bottom Shaker	TRTS60/N/A	TRTS60/N/A	TRZS752/N/A	TRZS752/N/A
Dimension	1510 × 1160 × 2000mm	1510 × 1360 × 2250mm	1835 × 1230 × 1810mm	1835 × 1230 × 1810mm
Weight	570kg/620kg	670kg/760kg	1300kg	1380kg

### Features and Benefits

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 **Desilter**



Model	TRCN100-4N	TRCN100-6N/8N	TRCN100-12N/16N	TRCN100-20N
Capacity	60m <sup>3</sup>	90m <sup>3</sup> /120m <sup>3</sup>	180m <sup>3</sup> /240m <sup>3</sup>	300m <sup>3</sup>
Cyclone Specs	4in			
Cyclone Qty	4nos	6nos/8nos	12nos/16nos	20nos
Working Pressure	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa	0.25 ~ 0.4mpa
Inlet Size	DN100mm	DN125mm	DN150mm	DN150mm
Outlet Size	DN125mm	DN150mm	DN200mm	DN200mm
Separation Point	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m	15 μ m ~ 44 μ m
Bottom Shaker	TRZS60/N/A	TRZS60/N/A	TRZS752/N/A	TRZS703/N/A
Dimension	1510 × 1160X2000mm	1510 × 1360 × 2250mm	1835 × 1230 × 1810mm	2770 × 1785 × 1810mm
Weight	550kg	560kg/580kg	1150kg	1950kg
Remark	All the desilter could be customized without shaker			

**Features and Benefits**

1. Pure polyurethane or high-chromium iron for cyclone .
2. Clamp connection for the installation of cyclone,easy to dismantle and replace.
3. Ball valve is installed at the inlet and outlet of cyclones,it is available to choose the cyclone number independently.
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5. Mechanical type screen box is synchronous with lifting device.
6. We can install Derrick hydrocyclones.





## Vacuum Degasser



Model	TRZCQ240	TRZCQ270	TRZCQ300	TRZCQ360
Body Diameter	700mm	800mm	900mm	1000mm
Capacity	240m <sup>3</sup> /h	270m <sup>3</sup> /h	300m <sup>3</sup> /h	360m <sup>3</sup> /h
Vacuum Degree	-0.03 ~ -0.045MPa			
Transmission Ratio	1.68	1.68	1.68	1.72
Degassing Efficiency	≥95%	≥95%	≥95%	≥95%
Main Motor Power	15kw	22kw	30kw	37kw
Vacuum Pump Power	2.2kw	3kw	4kw	7.5kw
Impeller Speed	860r/min	870r/min	876r/min	880r/min
Ex Stand	ExdIIBt4 / IECEX / A-TEX			
Weight	1100kg	1350kg	1650kg	1800kg
Dimension	1750 × 860 × 1500mm	2000 × 1000 × 1670mm	2250 × 1330 × 1650mm	2400 × 1500 × 1850mm

### Features and Benefits

1. High degassing efficiency;
2. Do not need supply pump;
3. Selecting infrared liquid level monitoring system;
4. Schneider or Siemens electrical components.



## Centrifugal degasser



Model	TRLQ300
Mud Inlet Diameter	20"
Mud Output Diameter	8"
Gas Output Diameter	2"
Maximum Passage Mount of Mud	300m <sup>3</sup> /h
Maximum Degassing Capacity	30m <sup>3</sup> /h
Main Motor Power	22Kw
Pump Motor Power	1.1Kw
Weight	1370kg
Dimension	1150×1055×3110mm

### Features and Benefits

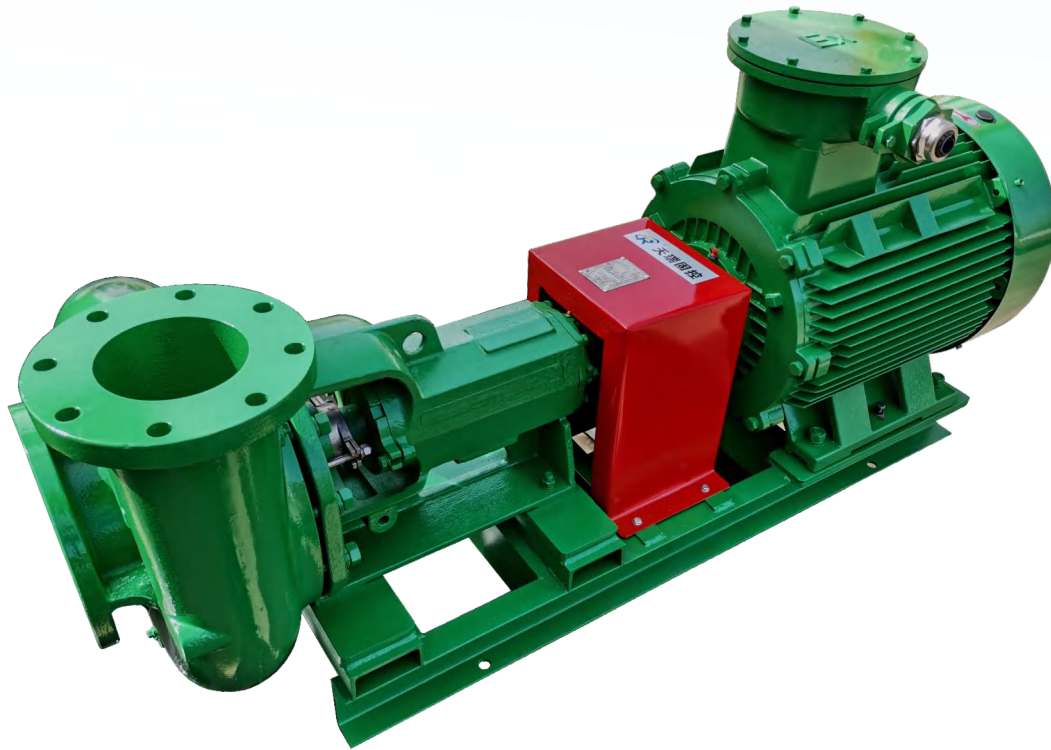
1. Using pressurized exhaust, high exhaust efficiency.
2. Small footprint, easy to use and maintenance.
3. The filter screen and impeller are welded in stainless steel and are highly corrosion resistant.
4. Electrical components are made from Schneider or Siemens, with stable performance.

### Operating principle

The drilling fluid is sucked into the degassing cylinder by the impeller. At the liquid level above the gas immersion drilling fluid, a column liquid layer with an inverted cone cavity is formed in the middle, and the mud is removed through the drainage opening of the drainage cavity. During the process of the impeller rotation, the bubbles burst, the gas overflowed the liquid level, and finally concentrated in the inverted cone cavity due to the small density. The pressurization unit passes the gas through the narrow channel between the air separation disc and the air separation ring into the exhaust cavity. It then passes through the airflow pipe and the braided hose, enters the pressurization unit from the suction port of the pressurization device, and finally is discharged from the discharge outlet by the pressurization device.



## Centrifugal Pump



Model	Flow rate	Lift	Impeller Diameter	Power	Frequency	Ex Standard	Weight	Dimension
TRSB8 × 6-14J	320m <sup>3</sup> /h	40m	14in	75kw	50HZ	ExdIIIBt4/ IECEX/ A-TEX	1096kg	1968 × 650 × 1017mm
TRSB8 × 6-12J			12in		60HZ			
TRSB8 × 6-13J	275m <sup>3</sup> /h	35m	13in	55kw	50HZ		987kg	1894 × 650 × 957mm
TRSB8 × 6-11J			11in		60HZ			
TRSB6 × 5-13J	200m <sup>3</sup> /h	35m	13in	45kw	50HZ		786kg	1811 × 558 × 858mm
TRSB6 × 5-10J			10in		60HZ			
TRSB6 × 5-12J	150m <sup>3</sup> /h	30m	12in	37kw	50HZ		771kg	1786 × 558 × 858mm
TRSB6 × 5-9J			9in		60HZ			
TRSB5 × 4-13J	120m <sup>3</sup> /h	35m	13in	30kw	50HZ		696kg	1696 × 568 × 805mm
TRSB5 × 4-11J			11in		60HZ			
TRSB5 × 4-12J	90m <sup>3</sup> /h	30m	12in	22kw	50HZ		583kg	1648 × 568 × 800mm
TRSB5 × 4-10J			10in		60HZ			
TRSB4 × 3-13J	65m <sup>3</sup> /h	35m	13in	18.5kw	50HZ		561kg	1595 × 505 × 800mm
TRSB4 × 3-12J			12in		60HZ			
TRSB4 × 3-12J	55m <sup>3</sup> /h	28m	12in	15kw	50HZ		482kg	1550 × 505 × 755mm
TRSB4 × 3-10J			10in		60HZ			
TRSB4 × 3-11J	45m <sup>3</sup> /h	25m	11in	11kw	50HZ	464kg	1510 × 505 × 755mm	
TRSB4 × 3-9.5J			9.5in		60HZ			
TRSB3 × 2-10J	30m <sup>3</sup> /h	20m	10in	7.5kw	50HZ	380kg	1398 × 490 × 717mm	
TRSB3 × 2-9J			9in		60HZ			



#### Impeller With Open Vane Structure

The open vane structure impeller reduces the shaft load to minimum, more suitable for transferring high density and high Viscosity mud.



#### Higher Efficiency And Longer Service Life

The vane profile complying with the hydraulic principle, increase the output and efficiency. utilizing wear-resistant materials for the key parts to prolong the service life.



#### Axial Adjustment Structure

Axial adjustment structure makes it free to adjust the clearance between impeller and mechanical seal to ensure equipment operation more reliable.



#### More Choice

A variety of pump casing and impeller can meet different requirements of the customers.



#### The Same Power Frame

The same power frame reduced the spare parts.



## Shear Pump



Model	FlowRate	Lift	Motor	Weight	Dimension
TRJQB6545	150m <sup>3</sup> /h	45m	55kw	980kg	1050 × 1000 × 1360mm
TRJQB6535	100m <sup>3</sup> /h	35m	37kw	800kg	1050 × 1000 × 1230mm



## Mud Gun



Model	TRNJQ50-3	TRNJQ50-3X	TRNJQ80-3	TRNJQ80-3X
Diameter	50mm	50mm	80mm	80mm
Work Pressure	≤6.4Mpa	≤3.2Mpa	≤6.4Mpa	≤3.2Mpa
Nozzle Number	1/3e			
Rotation Angle	N/A	360°	N/A	360°

## ▶ Jet Mud Mixer



Model	TRSLH150-50	TRSLH150-40	TRSLH150-30	TRSLH100
Capacity	240m <sup>3</sup> /h	180m <sup>3</sup> /h	120m <sup>3</sup> /h	60m <sup>3</sup> /h
Matching Pump	TRSB8 × 6-13J	TRSB6 × 5-13J	TRSB5 × 4-14J	TRSB4 × 3-11J
Motor Power	55kw	45kw	37kw	11kw
Work Pressure	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa
Inlet Diameter	150mm	150mm	150mm	100mm
Nozzle Diameter	50mm	40mm	30mm	25mm
Hopper Dimension	750 × 750mm	750 × 750mm	600 × 600mm	500 × 500mm
Burden Speed	≤100kg/min	≤80kg/min	≤60kg/min	≤40kg/min
Weight	1600kg	1450kg	1300kg	1100kg
Dimensions	2200 × 1700 × 1200mm	2200 × 1700 × 1200mm	2000 × 1650 × 1100mm	2000 × 1650 × 1100mm

## ▶ Hopper



Model	Work Pressure	Inlet Size	Hopper Diameter	Weight
TRSL150-50	0.2 ~ 0.4mpa	Dn150	750 × 750mm	170kg
TRSL150-40		DN150	750 × 750mm	170kg
TRSL150-30		DN150	600 × 600mm	165kg
TRSL100		DN100	500 × 500mm	140kg



## Mud Agitator



Model	Motor Power	Impeller Speed	Impeller Diameter	Impeller Qty	Explosion-proof Standard	Weight	Dimensions
TRJBQ3	3kw	60/72r/min	600mm	1	ExdIIBt4 / IECEX/ A-TEX	190kg	909 × 525 × 527mm
TRJBQ5.5	5.5kw		600mm	1		250kg	1072 × 610 × 588mm
TRJBQ7.5	7.5kw		650mm	2		380kg	1157 × 670 × 607mm
TRJBQ11	11kw		800mm	2		430kg	1297 × 740 × 692mm
TRJBQ15	15kw		950mm	2		480kg	1330 × 890 × 747mm
TRJBQ18.5	18.5kw		1000mm	2		740kg	1510 × 890 × 753mm
TRJBQ22	22kw		1100mm	2		780kg	1529 × 890 × 753mm
Remarks	Above weight and dimension did not include the mud agitator shaft.						



## Movable Hopper



Model	TRSL150-YD
Work Pressure	0.2~0.4mpa
Inlet Size	DN150
Outlet Size	DN150
Hopper Diameter	620mm
Weight	150kg



## Jet Mud Mixer



Model	TRSLH150-50	TRSLH150-40	TRSLH150-30	TRSLH100
Capacity	240m <sup>3</sup> /h	180m <sup>3</sup> /h	120m <sup>3</sup> /h	60m <sup>3</sup> /h
Matching Pump	TRSB8 × 6-13J	TRSB6 × 5-13J	TRSB5 × 4-14J	TRSB4 × 3-11J
Motor Power	55kw	45kw	37kw	11kw
Work Pressure	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa	0.25 ~ 0.4Mpa
Inlet Diameter	150mm	150mm	150mm	100mm
Nozzle Diameter	50mm	40mm	30mm	25mm
Hopper Dimension	750 × 750mm	750 × 750mm	600 × 600mm	500 × 500mm
Burden Speed	≤100kg/min	≤80kg/min	≤60kg/min	≤40kg/min
Weight	1600kg	1450kg	1300kg	1100kg
Dimensions	2200 × 1700 × 1200mm	2200 × 1700 × 1200mm	2000 × 1650 × 1100mm	2000 × 1650 × 1100mm



## Hopper

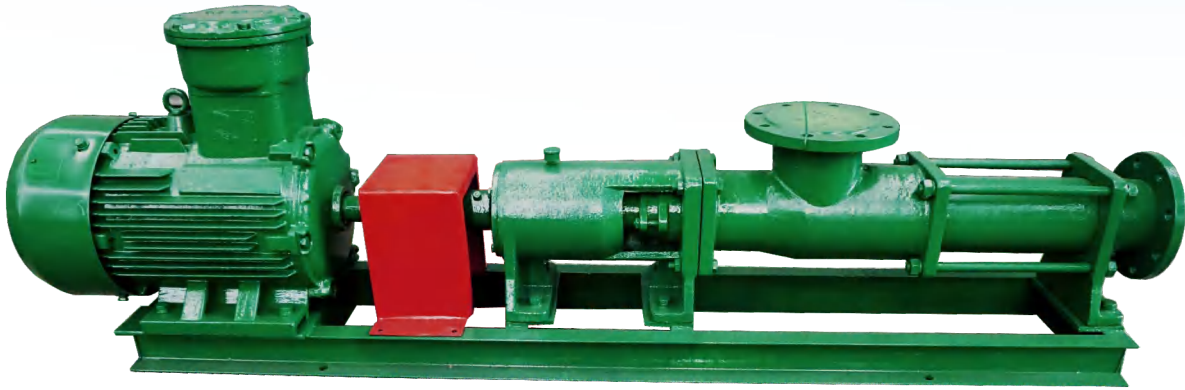


Model	Work Pressure	Inlet Size	Hopper Diameter	Weight
TRSL150-50	0.2 ~ 0.4mpa	Dn150	750 × 750mm	170kg
TRSL150-40		DN150	750 × 750mm	170kg
TRSL150-30		DN150	600 × 600mm	165kg
TRSL100		DN100	500 × 500mm	140kg





## Screw Pump



Model	Flow Rate	Pressure	Power	Inlet (inch)	Outlet (inch)	Ex Standard	Weight	Dimension
TRG10A-040	10m <sup>3</sup> /h	0.3Mpa	4kw	3	3	ExdII Bt4/ IECEX/ A-TEX	245kg	2245 × 320 × 550mm
TRG20A-055	20m <sup>3</sup> /h		5.5kw	3	3		323kg	2450 × 340 × 562mm
TRG30A-075	30m <sup>3</sup> /h		7.5kw	4	4		386kg	2761 × 370 × 600mm
TRG40A-110	40m <sup>3</sup> /h		11kw	5	5		454kg	3270 × 370 × 665mm
TRG50A-110	50m <sup>3</sup> /h		11kw	5	5		608kg	3790 × 400 × 782mm
TRG60A-150	60m <sup>3</sup> /h		15kw	5	5		649kg	3322 × 550 × 740mm
TRG70A-220	70m <sup>3</sup> /h		22kw	6	6		875kg	3740 × 420 × 785mm
TRG80A-220	80m <sup>3</sup> /h		22kw	6	6		875kg	3740 × 420 × 785mm
TRG90A-220	90m <sup>3</sup> /h		22kw	6	6		875kg	3740 × 420 × 785mm

### Features and Benefits

1. Screw pump is an ideal pump for feeding to decanter centrifuge. The main parts are screw shaft(rotor) and screw shaft bushing(stator). Because of special geometry shape of these two parts, the pump forms pressurize capacity separately, and the waste fluids flow along with the shaft. Slow inner flow speed, remaining capacity and steady pressure make it won't generate vortex and agitating. Usually shaft of screw pump is made from stainless steel. TR screw pump is available for complete stainless steel body.

2. It can drive by coupler, or adjust the speed by using variable speed motor, triangle V-belt and gear box etc. TR series screw pump is with less accessories, compact structure, small volume and easy maintenance. Rotor and stator are vulnerable parts of this pump, and they are easy to replace. Stator is made of synthetic rubber material, it has particular advantages than other pumps to transfer the fluids with high viscosity and hard suspended particles.

## Mud Gas Separator



Model	TRZYQ800	TRZYQ1000	TRZYQ1200
Capacity	180m <sup>3</sup> /h	240m <sup>3</sup> /h	320m <sup>3</sup> /h
MainBody Diameter	800mm	1000mm	1200mm
Inlet Pipe	DN100mm	DN125mm	DN125mm
Output Pipe	DN150mm	DN200mm	DN250mm
Gas DischargePipe	DN200mm	DN200mm	DN200mm
Weight	1750kg	2235kg	2600kg
Dimensions	1900 × 1900 × 5700mm	2000 × 2000 × 5860mm	2200 × 2200 × 6634mm

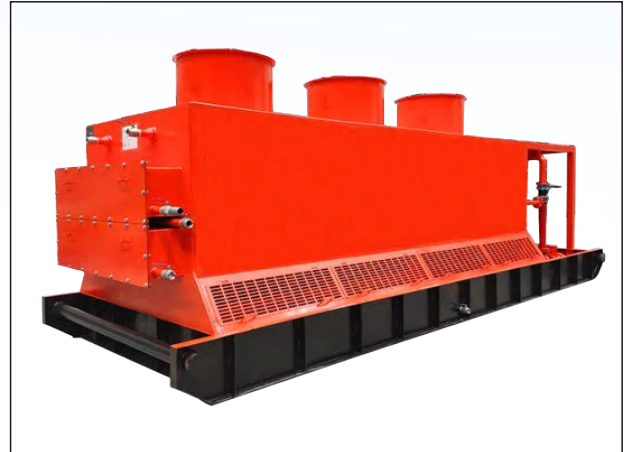
## Flare Ignition Device



Model	TRYPD-20/3	TRYPD-20/3T
Diameter of Main Body	DN200	
Charging Voltage	12V / 220V	
Ignition Media	Natural gas/LPG	
Ignition Voltage	16kv	16kv
Charge Mode	AC	Solar and AC
Weight	520kg	590kg
Dimensions	1610 × 650 × 3000mm	1610 × 650 × 3000mm



## Drilling Mud Cooler

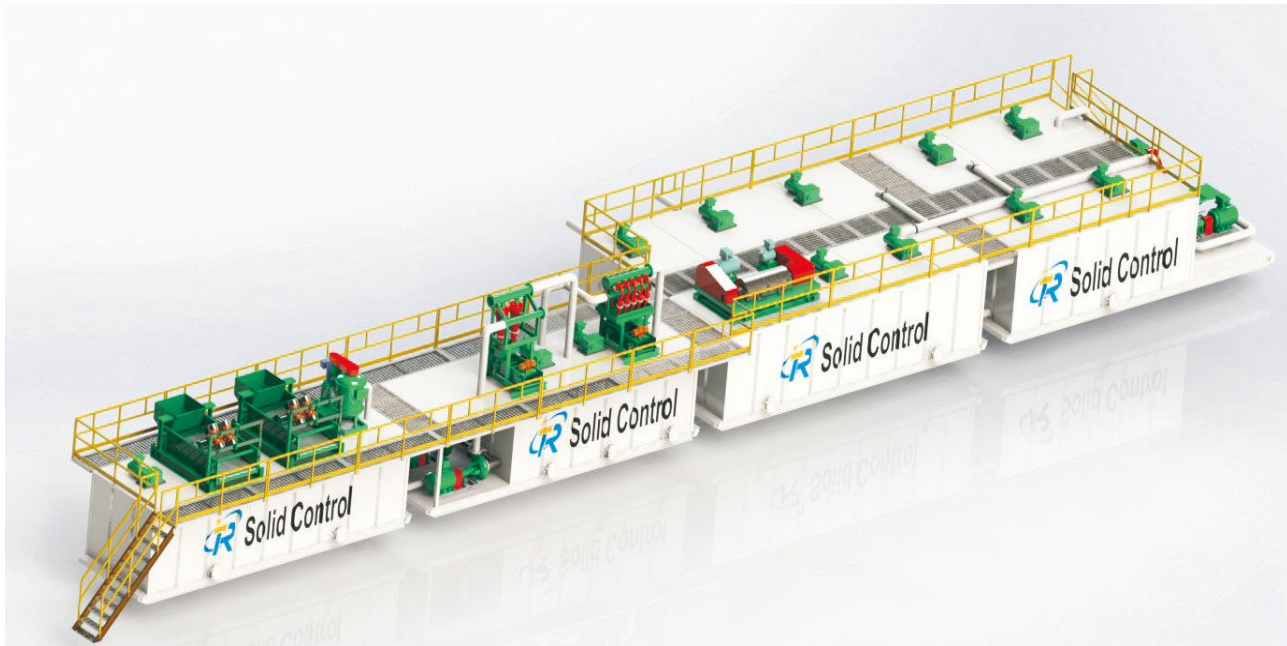


Exhaust system		Water Cooling System		Mud System	
Dimension	1000mm	Inlet (Water)Dimensions	2.5"	Inlet (Slurry) Dimensions	8" (DN150)
Blade Quantity	10	Outlet (Water)Dimensions	3"	Outlet(Slurry)Dimensions	6" (DN125)
Voltage	Customize	Voltage	Customize	Voltage	Customize
Generator Type	Explosion-proof	Generator Type	Explosion-proof	Generator Type	Explosion-proof
Power	7.5kw	Power	22kw	Power	55kw
Flow	600m <sup>3</sup> /min	Flow	160m <sup>3</sup> /h	Flow	318m <sup>3</sup> /h
Driving Mode	Direct Drive	Radiator	2.5"	Number of nozzles	4
		Number of Radiators	36×0.57"	Pipe Volume	2423m <sup>3</sup>
		Driving Mode	Direct Drive	Copper Cooling Area	189571m <sup>2</sup>
				Inlet and Outlet Temperature Difference	50-60°C

### Working Principle of Drilling Mud Chiller

The working process of drilling mud cooler is that The High-temperature mud into the mud cooling system, cooling water to the fan on the cooling tower to provide high-intensity cold air and circulating cooling water, when the high-temperature mud in the cooling tower circulation, due to the role of the fan and the cooling water, continue to emit a large amount of heat, the available low-temperature mud will be from the bottom of the cooling tower pipeline out to achieve the work of mud cooling.

 Oil & Gas Drilling System



Configure the device	ZJ70	ZJ50	ZJ40	ZJ30	ZJ20	ZJ10
Mud Tank	≥270m <sup>3</sup> /h	≥200m <sup>3</sup> /h	≥180m <sup>3</sup> /h	≥160m <sup>3</sup> /h	≥160m <sup>3</sup> /h	≥80m <sup>3</sup> /h
Storing Tank	≥160m <sup>3</sup> /h	≥120m <sup>3</sup> /h	≥80m <sup>3</sup> /h	≥80m <sup>3</sup> /h	×	×
Shale Shaker	≥360m <sup>3</sup> /h	≥280m <sup>3</sup> /h	≥240m <sup>3</sup> /h	≥180m <sup>3</sup> /h	≥140m <sup>3</sup> /h	≥80m <sup>3</sup> /h
VacuumDegasser	≥360m <sup>3</sup> /h	≥300m <sup>3</sup> /h	≥240m <sup>3</sup> /h	√	√	×
Desander	≥320m <sup>3</sup> /h	≥240m <sup>3</sup> /h	≥200m <sup>3</sup> /h	≥180m <sup>3</sup> /h	≥120m <sup>3</sup> /h	√
Desilter	≥320m <sup>3</sup> /h	≥240m <sup>3</sup> /h	≥200m <sup>3</sup> /h	√	×	×
Middle Speed Centrifuge	≥50m <sup>3</sup> /h	≥50m <sup>3</sup> /h	≥40m <sup>3</sup> /h	√	√	×
High Speed Centrifuge	≥40m <sup>3</sup> /h	≥40m <sup>3</sup> /h	√	×	×	×
Jet Mud Mixer	≥300m <sup>3</sup> /h	≥240m <sup>3</sup> /h	≥200m <sup>3</sup> /h	≥180m <sup>3</sup> /h	≥120m <sup>3</sup> /h	≥80m <sup>3</sup> /h
ShearPump	≥120m <sup>3</sup> /h	≥120m <sup>3</sup> /h	≥120m <sup>3</sup> /h	≥120m <sup>3</sup> /h	≥100m <sup>3</sup> /h	×
Charging Pump	≥240m <sup>3</sup> /h	≥200m <sup>3</sup> /h	≥180m <sup>3</sup> /h	≥150m <sup>3</sup> /h	≥100m <sup>3</sup> /h	×



## Drilling Waste Management



## Pitless System Introduction

With the increasing environmental protection of oil fields, TR Solids Control develops our own intellectual property rights pitless system and equipment.

Drilling Waste Management is also called pitless system, this system is mainly combined with Drying Shaker, Cutting Dryer, Decanter Centrifuge, Screw Conveyor and Pumps. It is widely used for drilling cuttings treatment. As an API Certified manufacturer in China, TR Solids Control can independently design and manufacture various model Drilling Waste Management or Cutting Dryer System according to customer's requirement.



## Pitless System Case



Configure ji			
1	Drying Shaker	1 unit	TRZS584
2	Vertical Cutting Dryer	1 unit	TRCD930C
3	High Speed Centrifuge	1 unit	TRLW355N-1
4	Sand Pump	2 unit	TRSB4×3-11
5	Centrifuge Supply Pump	1 unit	80YZ50-20B
6	Screw Conveyor	1 set	TRL×350×3000
7	Mud Tank	2 sets	3m×2.15m×1.3m 9m×2.2m×1.3m



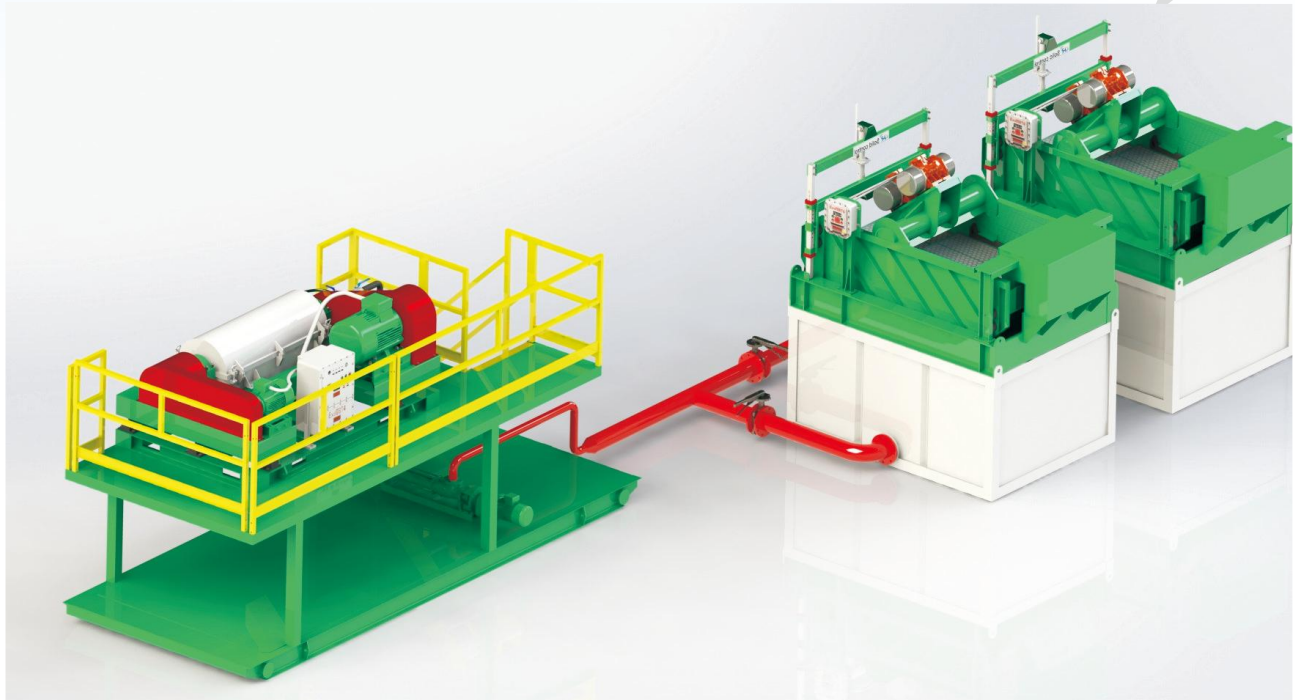


## Filter Pressing Type Drilling Waste Management





## Drilling Cuttings Mud Dewatering System

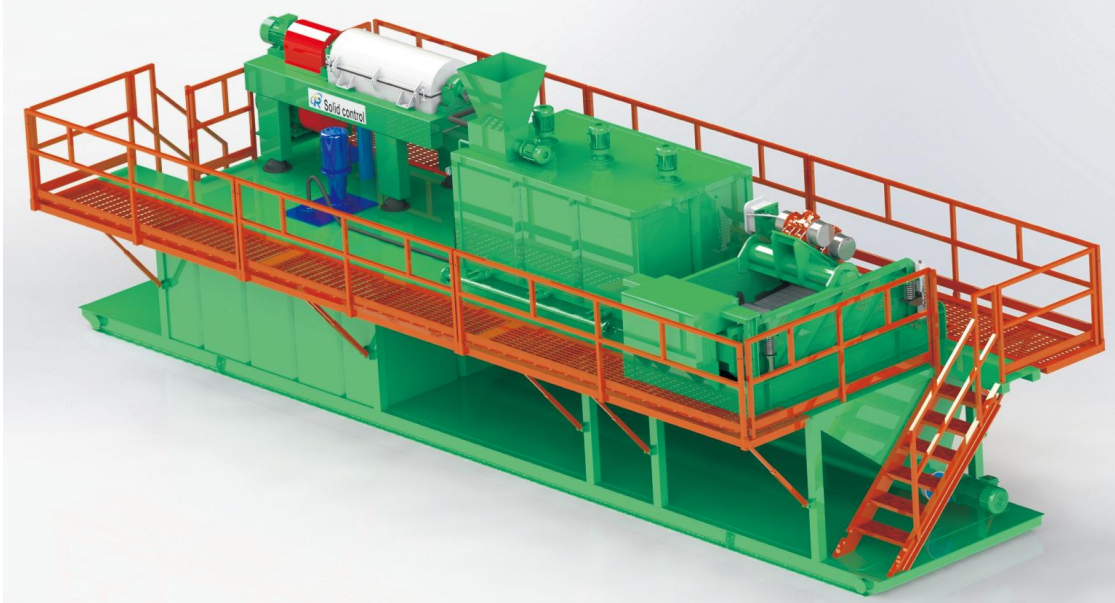


1	Drying Shake	2 unit	TRZS584G或TRZS703G
2	Shale Shaker Tank	2 sets	2600X1700X1000mm
3	High Speed Centrifuge	1 unit	TRLW355N1或TRLW355NB-1
4	Screw Pump	1 unit	TRG30A-075
5	Centrifuge Lifter	1 unit	4000X2200X1300mm

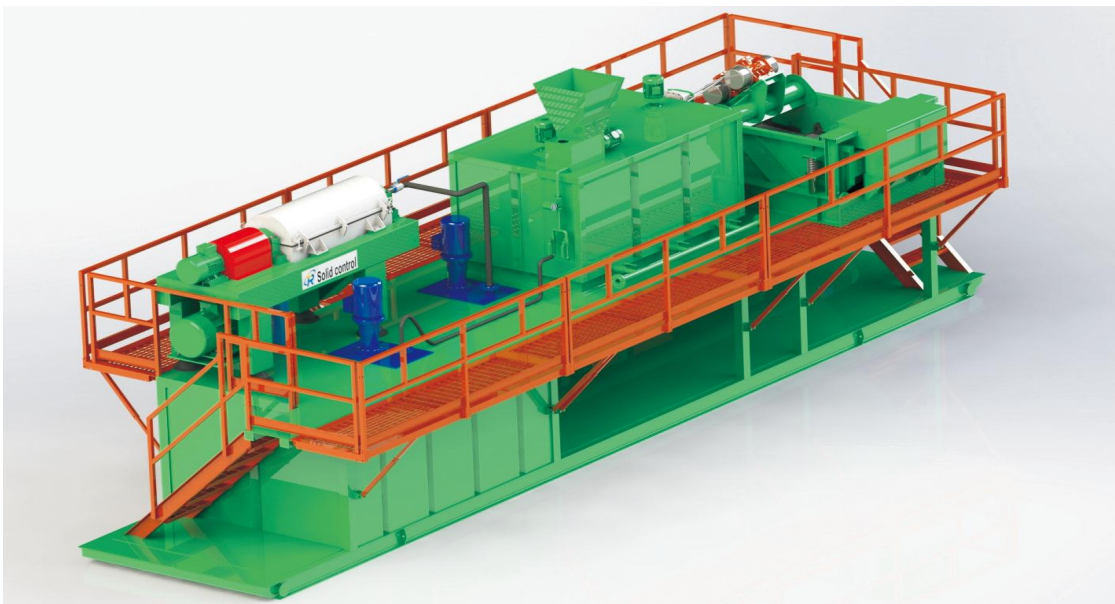




## Drilling Cuttings Mud Dewatering System



1	Drying Shaker	2 unit	TRZS584G或TRZS703G
2	Chemical Agent Tank	2 sets	3200X1550X2500mm
3	High Speed Centrifuge	1 unit	TRLW355N1或TRLW355NB-1
4	Screw Pump	1 unit	TRG30A-075
5	Mud Tank	1 unit	9000X2300X1300mm



 **HDD & Trenchless System**



Model	TRHDD-200	Model	TRHDD-500	TRHDD-1000
Processing Capacity	200GPM (50m <sup>3</sup> /h)	Processing Capacity	500GPM (120m <sup>3</sup> /h)	1000GPM (240m <sup>3</sup> /h)
shale shaker	TRZS752S	Shale shaker	TRZS703/TRZS585	TRZS703/TRZS585
Total Upper Screen Area	0.875m <sup>2</sup>	Screen Area	2.7m <sup>2</sup>	2X2.7m <sup>2</sup>
Lower Screen Area	1.35m <sup>2</sup>	Sand and mud separator	TRQJ250X1S-100X8N	TRQJ250X2S-100X12N
Hydrocyclone	4"	Desander Hydrocyclone	10"×1pcs	10"×2pc
Hydrocyclones Qty	4个	Desilter Hydrocyclone	4"×8pcs	4"×12pcs
Supply Pump	TRSB4X3-12J	Total Underflow Screen Area	1.35m <sup>2</sup>	2.12m <sup>2</sup>
Mixing Pump	TRSB4X3-11J	Supply Pump	TRSB6X5-11J 2	TRSB8X6-11J 2
Mixing Hopper	TRSLH100	Mixing Unit	TRSB6X5-12J	TRSB8X6-12J
Total Power	44kW	Mixing Unit	TRSLH150-35 (37KW)	TRSLH150-35 (45KW)
Total Volume	5m <sup>3</sup>	Mud agitator	TRJBQ7.5	TRJBQ7.5
Dimensions	4000×2360×2940mm	Total Power	130kW	184kW
Weight	5500kg	Total Volume	15m <sup>3</sup>	30m <sup>3</sup>
		Dimensions	10000×2360×4228mm	12100×2630×4438mm
		Weight	17000kg	20000kg



## Tunnel Boring System



Single module Processing capacity			
Max Capacity	120m <sup>3</sup> /h	total power	82.8kw
separation size	d50=0.074mm	Maximum moisture content of the treated material	30%
Coarse shale shaker	TRDGS900	Power	2.2kw X 2
Fine shale shaker	TRDG700	Power	1.94kw X 2
Flow rate of the sand removal pump	120m <sup>3</sup> /h	Motor Power	37kw
Flow rate of the sludge removal pump	120m <sup>3</sup> /h	Motor Power	37kw
Desander cones	12寸	Desander cones Qty	2
Desilter cones	4寸	Desilter cones Qty	8个
Dimensions	6.5m×2.5m×7m	Weight	10t (约)
solid content less than	30%		1.25g/cm <sup>3</sup> (±0.1)

**Bored Piling Mud Recycling System**



Model	TRZX-50/25	TRZX-100/50	TRZX-200/50
Fluid Capacity	≤50m³/h	≤100m³/h	≤200m³/h
Sludge Treatment Capacity	10~26t/h	20~50t/h	25~80t/h
Separation Point	25μm	50μm	50μm
Shale Shaker	TRZS753	TRZS753	TRZS705
Screen Area	Lower 700×1250	Lower 700×1250	Lower 700×900×2
	Superstratum 750×900×2	Superstratum 750×900×2	Superstratum 700×1250×3
Vibration Motor	1.0kw×2	1.0kw×2	1.5kw×2
Matching Pump	TRSB4×3-12(15kw)	TRSB5×4-13(30kw)	TRSB6×5-13J(45kw)
Cyclones	DN100×4	DN250×1	DN250×2
Tanks Dimension	2300×1830×1300mm	3100×2030×1300mm	4000×2200×1300mm
System Dimension	2300×1830×2400mm	3100×2030×1300mm	4000×2300×2850mm

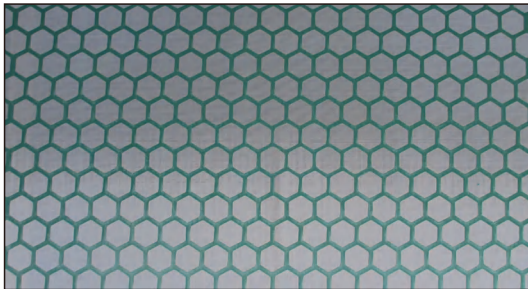


## Shaker Screen

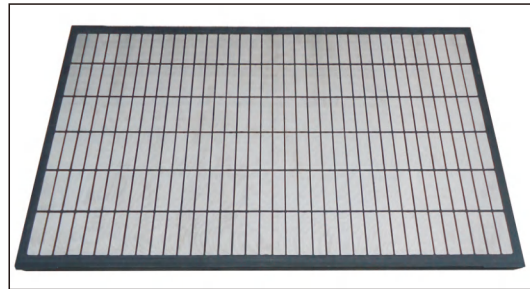
TR Solid Control adopts international advanced technology and mechanized production methods to manufacture TR brand shaker screen and alternative screen for internationally renowned brands. The available screen mesh ranges from API20 to API400. TR shaker screen features a long service life and excellent separation effect, all meeting the standards of the API Q1 Petroleum Institute.

API Number	D100 (mm) /D100(microns)	API Number	D100 (mm) /D100 (microns)
API 20	>780.0 To 925.0	API 120	> 116.5.0 To 137.5
API 30	>550.0 To 655.0	API 140	> 98.0 To 116.5
API 35	>462.5 To 550.0	API 170	> 82.5 To 98.0
API 40	>390.0 To 462.0	API 200	> 69.0 To 82.5
API 50	>275.0 To 390.0	API 230	> 58.0 To 69.0
API 60	>213.0 To 275.0	API 370	> 49.0 To 58.0
API 70	>196.0 To 213.0	API 325	> 41.5 To 49.0
API 80	>165.0 To 196.0	API 400	> 35.0 To 41.5
API 100	>137.5 To 165.0		

Petroleum shaker screens are mainly divided into frame screens (pmd screens and flat screens), hard hook edge screens (pmdscreens and flat screens), and soft groove edge screens. Xi 'an Tianrui not only manufactures screens of its own shaker screen specifications, but also can customize them according to customers' requirements. We can also produce shaker screens for well-known foreign brands such as Derrick, Swaco and Brandit.



Cobra frame screen (Brandit VSM300 screen)



Frame composite screen



Rigid Hook-strip Pyramid Screen (Derrick FLC500 Screen)



Rigid Hook-strip Pyramid Screen (Derrick FL2000 Screen)



Rigid Hook-strip Pyramid Screen (M-I ALS Screen)



Flexible Edge Screen (Desander and Desilter Underflow Screen)



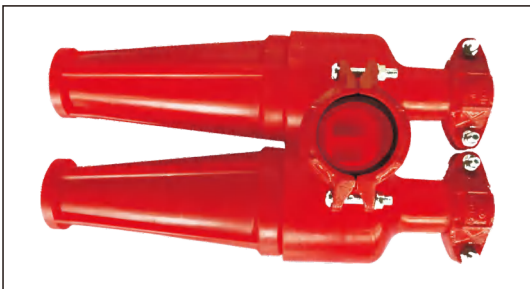
## Spare Parts



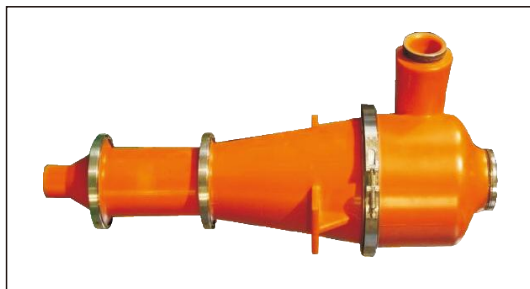
Desander Cylone



Desilter Cylone



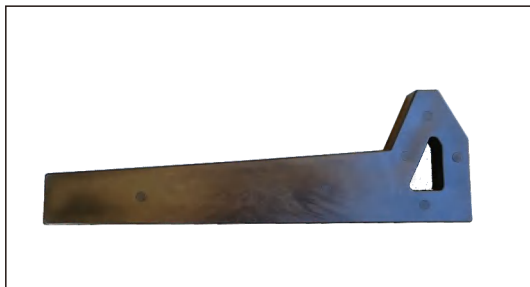
Swaco 4" Hydrocyclone



Swaco 12" Hydrocyclone



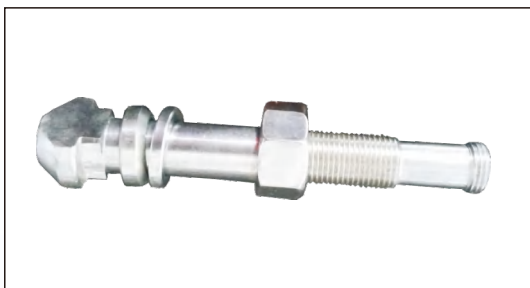
Rubber Spring



Screen Wedge



Mechanical Seals

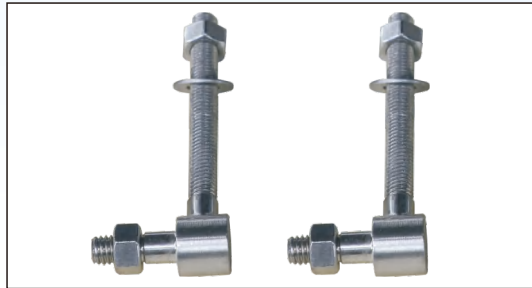


lock Nut, Shaker Screen





Clamp Ring



Bolt Assy, Gland



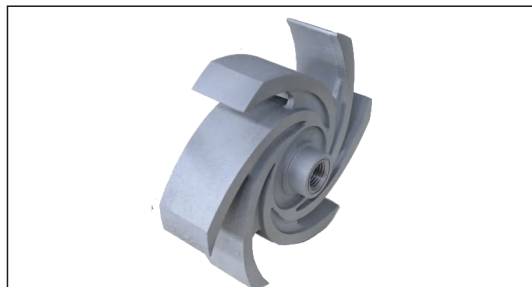
Shaft



Wear-resistant Shaft Sleeve



Stuffing Box, Mech Seal



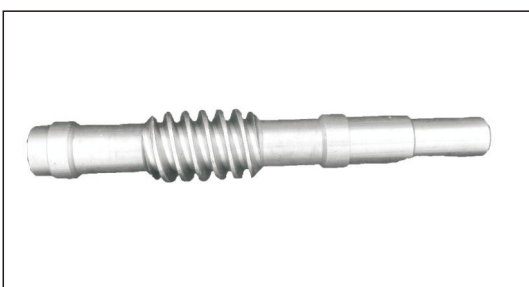
Impeller



Bearing



Oil Seal



Worm



Worm Wheel



## Performance



## Pitless System Case



## Bored Pile





## Tunnelling Boring System



## Oil & Gas Drilling System

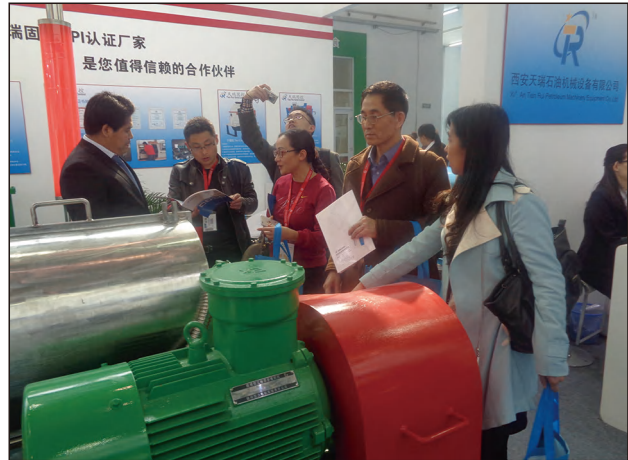


## HDD & Trenchless System





# Exhibition





**Xi'an Tianrui Petroleum Machinery Equipment Co., Ltd., established in 2010, is a modern manufacturer of solids control equipment certified to both API Q1 and ISO 9001 standards.**

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