

Linear Shale Shaker



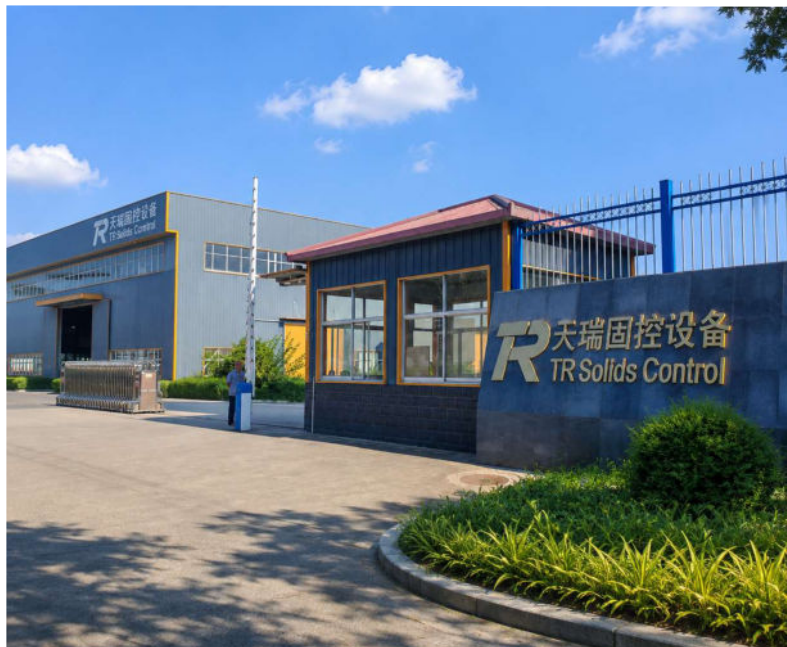
>>> Xi'an • China

energy **API** **Q1**
Registered
Manufacturer

Xi'an Tianrui Petroleum Machinery Equipment Co., Ltd.

About Us

- Established in December 2010, TR Solids Control is a professional manufacturer specializing in the R&D, production, sales and technical service of solids control equipment and mud recovery systems.
- Headquartered in Xi'an Economic and Technological Development Zone, the company covers an area of over 40 acres and employs 350-450 skilled professionals, including a dedicated R&D team of experienced engineers and technical experts.
- TR Solids Control has established a global presence, delivering reliable solutions to over 60 countries and regions across North America, South America, Europe, Asia, the Middle East and Africa.



About Us



Production Capacity

- Our company operates a modern manufacturing base covering a total area of approximately 35,000 square meters, including 22,000 square meters of standardized industrial workshops. We have established independent blanking, machining, welding, assembly, finished product inspection and warehousing & logistics centers, realizing a full-process closed-loop production system from raw material warehousing to finished product delivery.
- We have established a comprehensive quality control system, equipped with high-precision testing equipment such as coordinate measuring machines, ultrasonic flaw detectors, hardness testers and dynamic balance testing machines. All products are inspected in full accordance with international standards.



Company Qualification



Linear Shale Shaker

Introduction



- The linear motion shale shaker is a primary solids control device widely used in oil, gas, and engineering drilling operations. Two symmetrically mounted motors rotate in opposite directions, generating a combined linear force that drives the screen box in reciprocating motion, conveying cuttings at uniform speed for continuous solid-liquid separation.
- The clear directional thrust delivers outstanding solids conveyance — cuttings migrate rapidly with minimal screen accumulation, maintaining stable screening efficiency even during high-volume fast-drilling stages and preventing mud overflow or screen overload.
- Simple in structure, high in throughput, and easy to maintain, the linear motion shaker is one of the most widely deployed shaker types on drilling sites — an economical and reliable core choice for primary solids control.



Linear Shale Shaker



Operating Principle

- The linear motion shaker operates on a dual-motor excitation principle. Two vibration motors mounted symmetrically above the screen box rotate in opposite directions in synchrony — their centrifugal forces cancel in the parallel direction and combine in the perpendicular direction, generating a single directional excitation force that drives the screen box in high-frequency linear reciprocating motion.
- Solid-liquid separation occurs continuously during operation. Drilling fluid feeds onto the screen surface, where the liquid phase and fine particles smaller than the mesh aperture rapidly penetrate the screen under gravity and vibrational inertia, returning to the mud circulation system below. Oversize solids are retained on the screen and conveyed toward the discharge end by the directional thrust, exiting continuously through the discharge outlet.
- Vibration intensity, deck angle, and motion parameters are all field-adjustable, allowing operators to optimize the balance between throughput, separation precision, and cuttings dryness — ensuring peak performance across varying formation conditions and delivering



Linear Shale Shaker

• TRZS584 Series Linear Shale Shaker Features & Benefits

1

Efficient Screening, No Blinding
Rapidly removes $\geq 74\mu\text{m}$ solids, significantly reducing sand content

Mud Reuse, Lower Drilling Cost
Treated fluid returns directly to the circulation system, reducing new mud preparation

2

3

High Capacity, Wide Adaptability
Adjustable amplitude and deck angle handle high-density, high-viscosity

Robust Structure, Reliable Operation
Steel frame withstands impact and corrosion; mature vibration motors ensure long continuous runtime

4

5

Easy Maintenance, Low Labor Cost
Screen panels swap in under 5 minutes; few wear parts, quick daily inspection

Adjustable Parameters, Strong Adaptability
Reduces uncontrolled waste discharge and site contamination

6

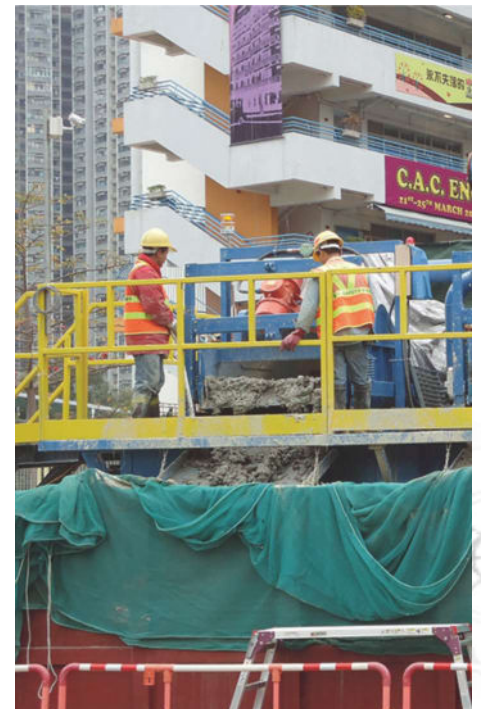
Applicable Conditions



Oil/Gas Drilling



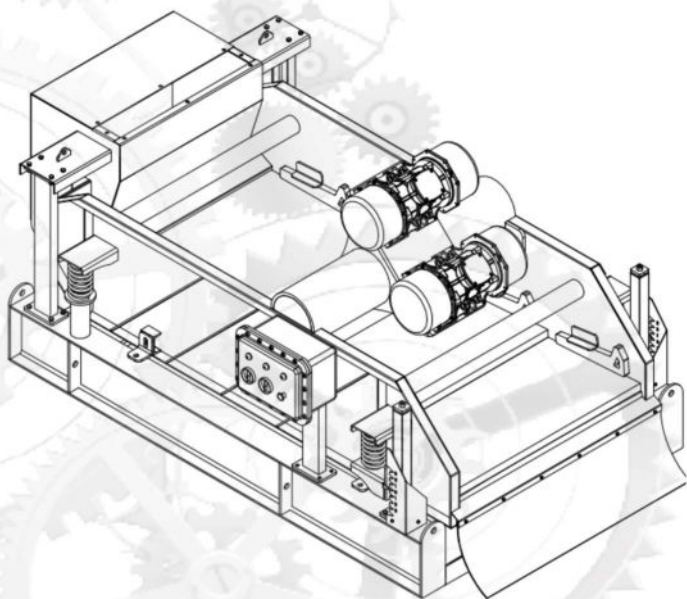
River Dredging



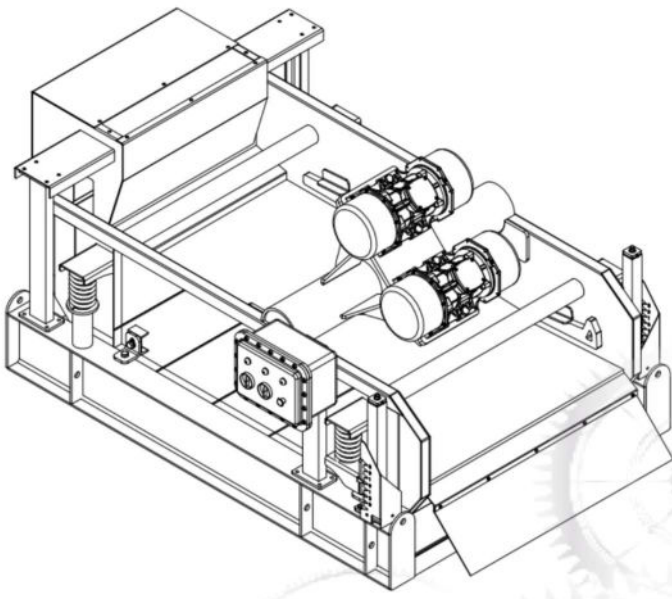
TBM Slurry Treatment

Linear Shale Shaker

Model	TRZS752	TRZS703	TRZS583	TRZS584
Vibration Motion	Linear Motion			
Motor Power	2×0.75kW	2×2.2kW	2×2.2kW	2×2.2kW
Vibration Intensity	≤7.5G			
Amplitude	6.0~7.2mm			
Capacity	45m³/h	130m³/h	90m³/h	130m³/h
Adjustable Angle	0°~3°	-3°~+3°	-3°~+3°	-3°~+3°
Screen Size	750×900	700×1250	585×1165	585×1165
No. of Screens	2	3	3	4
Electrical	380V/50Hz, 460V/60Hz			
Noise Level	<85dB	<85dB	<85dB	<85dB
Explosion-Proof Standard	ExdIIBt4 / IEC EX / ATEX			



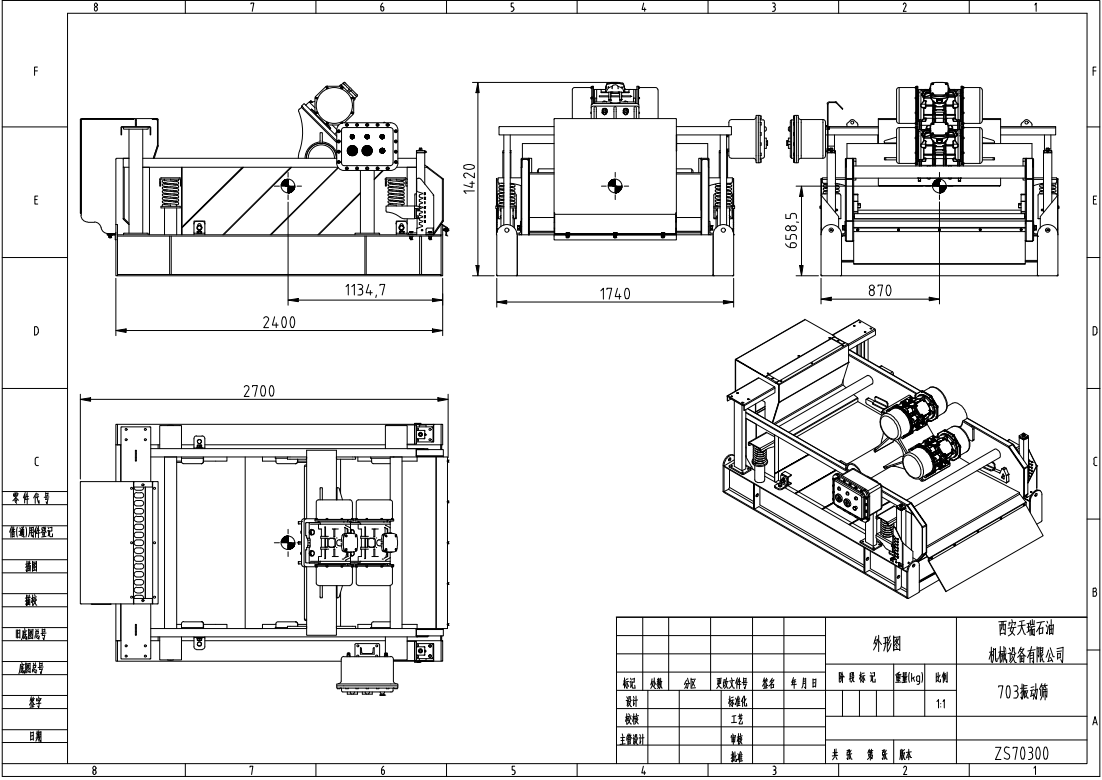
TRZS584



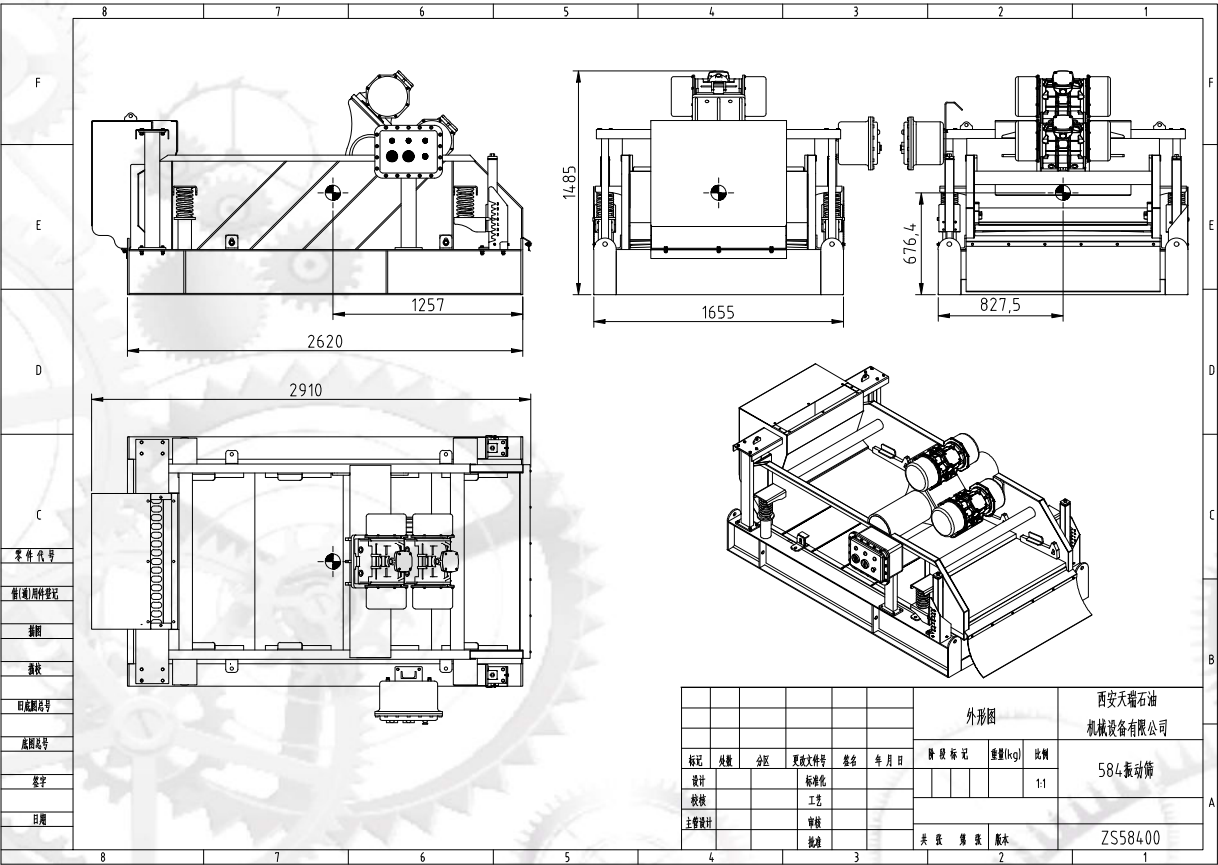
TRZS703

Linear Shale Shaker

TRZS703 Linear Shale Shaker Outline Drawing



TRZS584 Linear Shale Shaker Outline Drawing





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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