

Dual Motion Shale Shaker



>>> Xi'an • China

energy

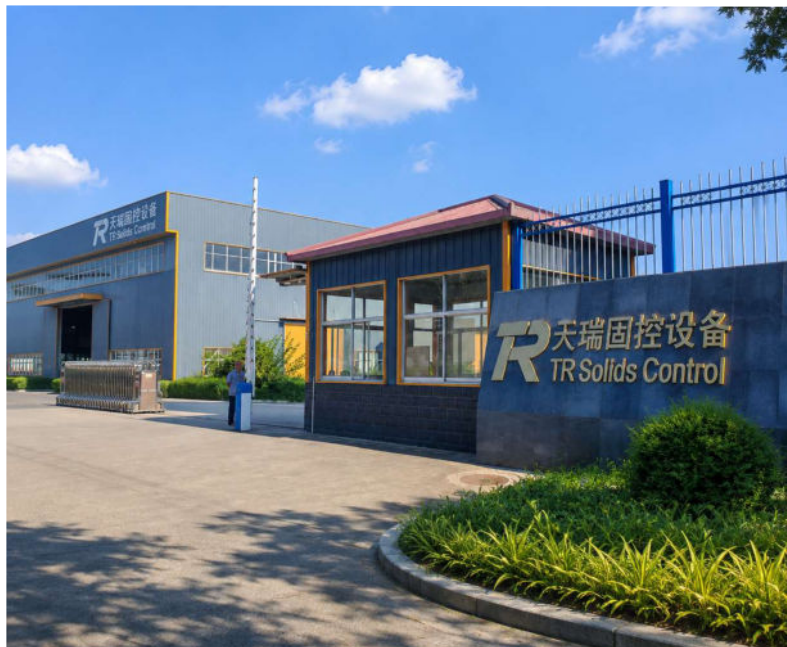


Q1

Registered
Manufacturer

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



Dual Motion Shale Shaker

Introduction



- The dual-motion shale shaker switches between linear and elliptical vibration modes, widely used in primary solids control for oil, gas, and geothermal drilling. A single unit combines the high conveyance efficiency of linear motion with the superior screening precision of elliptical motion, meeting diverse operational demands.
- In linear mode, the combined motor force drives cuttings rapidly toward the discharge end — ideal for high-throughput, fast-drilling conditions. In elliptical mode, the compound motion significantly improves liquid penetration through the mesh, handling high-viscosity, high-density mud with greater screening fineness. Switching between modes requires no shutdown, allowing instant response to changing drilling conditions.



Dual Motion Shale Shaker



Operating Principle

- The dual-motion shaker is driven by two vibration motors through a precision transmission mechanism, enabling fast, stable switching between linear and elliptical motion to handle diverse operating conditions with a single unit.
- In linear mode, the two motors rotate in opposite synchrony, applying a combined force along a fixed axis to drive cuttings toward the discharge end at a steady pace — ideal for high-throughput, fast-drilling conditions with heavy cuttings influx. In elliptical mode, the excitation mechanism adjusts motor phase relationships to generate a compound motion combining longitudinal thrust and perpendicular vibration, promoting thorough penetration of liquid phase and fine particles through the mesh, significantly improving screening precision and fluid recovery for high-viscosity, high-density mud.
- Mode switching is straightforward and requires no shutdown, allowing real-time adjustment to drilling speed, mud properties, and throughput demands.



Dual Motion Shale Shaker

• TRPZ584 Series Dual Motion Shale Shaker Features & Benefits

1

Dual-Mode, Flexible Switching

Linear and elliptical motion in one unit, covering both high-throughput discharge and fine screening

2

No-Shutdown Switching

Instant mode switching with no stoppage, adapting to changing conditions

3

Linear Mode: Fast Discharge, High Throughput

Directional vibration drives rapid cuttings conveyance

4

Elliptical Mode: Fine Screening, No Blinding

Vertical vibration accelerates liquid penetration through the mesh

5

High ROI, Lower Overall Cost

One unit replaces two shakers, reducing equipment count and footprint

6

Multi-Parameter Tuning

Intensity, deck angle, and motion mode all adjustable for every drilling stage.

Applicable Conditions



Oil/Gas Drilling

Dual Motion Shale Shaker

Model	TRPZS584	TRPZS583
Vibration Motion	Dual Motion	
Vibration Motion	2×1.72kW + 0.4kW	2×1.5kW + 0.4kW
Vibration Intensity	≤7.5G	
Amplitude	6.0~7.2mm	
Capacity	140m³/h	110m³/h
Adjustable Angle	-3°~+3°	
Screen Size	585×1165mm	
No. of Screens	4	3
Electrical	380V/50Hz, 460V/60Hz	
Noise Level	<85dB	
Explosion-Proof Standard	ExdIIIBt4 / IEC EX / ATEX	
Certifications	UL / ATEX / BV / IADC / JAS-ANZ / API	
Overall Dimensions	2950×1950×1500mm	2380×1950×1500mm
Theoretical Weight	1550kg	1400kg
Note	Tested at mud density 1.2g/cm³, viscosity 45s, 60-mesh screen	





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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