

6-S SHAKING TABLE



Feed size:
0.074–2 mm



Capacity:
0.5–1.2 t/h



Slurry concentration:
15–30%



Motor power:
1.1 kW



The 6-S shaking table is a wet gravity-separation machine used to separate liberated mineral particles according to differences in density, particle size and shape.

KEY FEATURES

- Long rectangular riffled deck for efficient stratification
- Reciprocating head-motion for continuous separation
- Adjustable deck support for slope and stroke tuning
- Wash-water distribution system for bed stratification
- Separate concentrate, middling and tailings discharge
- Robust steel construction for industrial environments

Process Range

Model designation:	L-S Type (6-S)
Feed particle size:	0.074–2 mm
Processing capacity:	0.5–1.2 t/h
Feed slurry concentration:	15–30%

Operating Adjustments

Stroke:	10–30 mm
Stroke frequency:	240–360 times/min
Deck inclination:	0–8°
Wash-water requirement:	0.4–0.8 t/h

Machine Dimensions

Deck dimensions:	1,520 × 1,825 × 4,500 mm
Overall dimensions:	5,454 × 1,825 × 1,242 mm

Drive and Weight

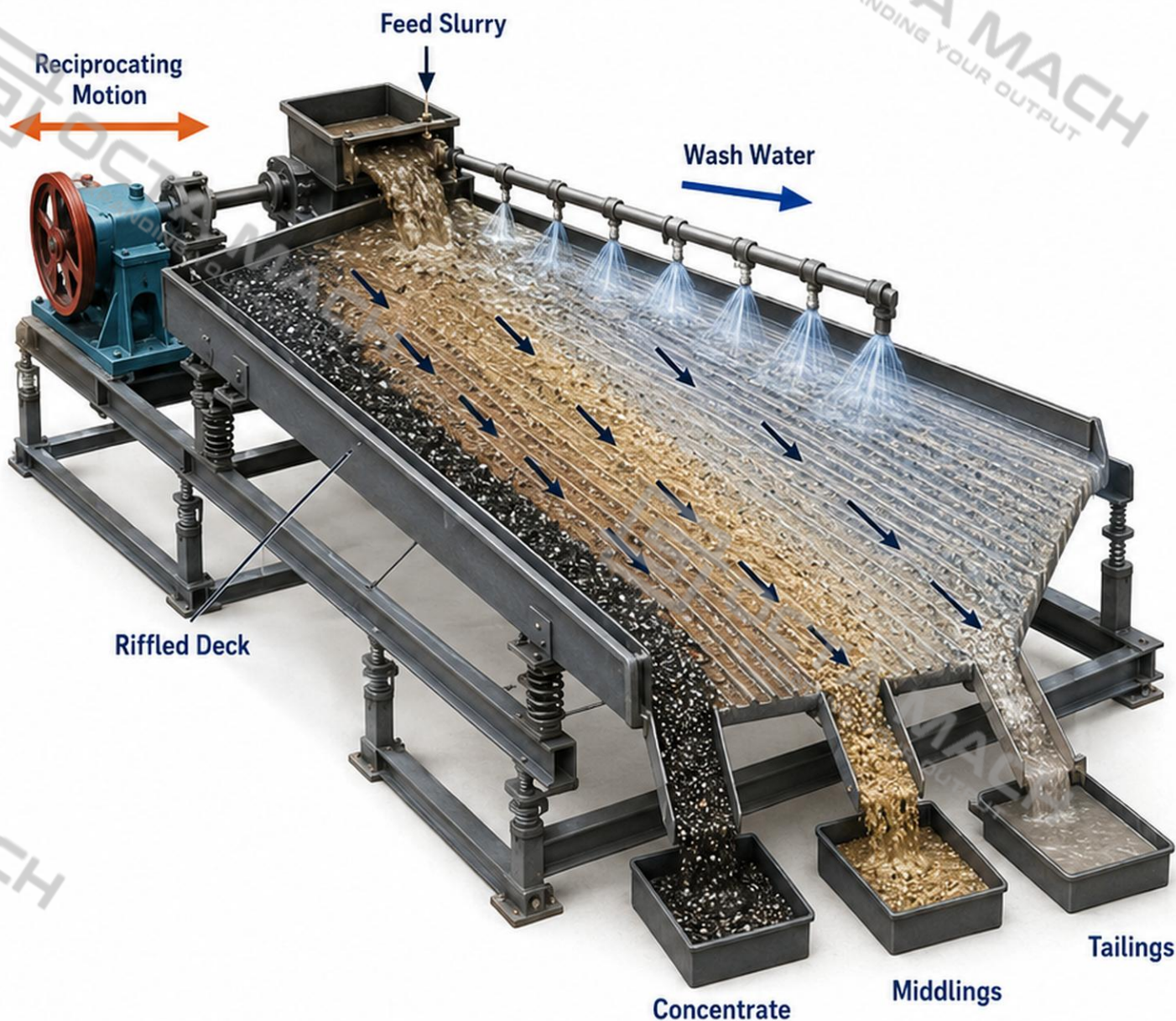
Motor power:	1.1 kW
Machine weight:	1,012 kg



Published capacity is a nominal equipment range and does not guarantee recovery, concentrate grade or metallurgical performance. The three-value deck dimensions are listed as supplied and should not be interpreted with dimensional arrows without a confirmed general-arrangement drawing.

Working Principle and Separation Zones

Wet gravity separation by deck motion, riffles, wash water and density contrast.



1



Stroke

Effect: Particle movement and bed loosening

Confirmed range: 10–30 mm

2



Stroke Frequency

Effect: Repeated stratification and motion intensity

Confirmed range: 240–360 times/min

3



Deck Inclination

Effect: Transverse transport toward the tailings side

Confirmed range: 0–8°

4



Wash-Water Flow

Effect: Bed washing and light-particle transport

Confirmed range: 0.4–0.8 t/h

5



Feed Condition

Effect: Controls deck loading and band stability

Confirmed feed size: 0.074–2 mm

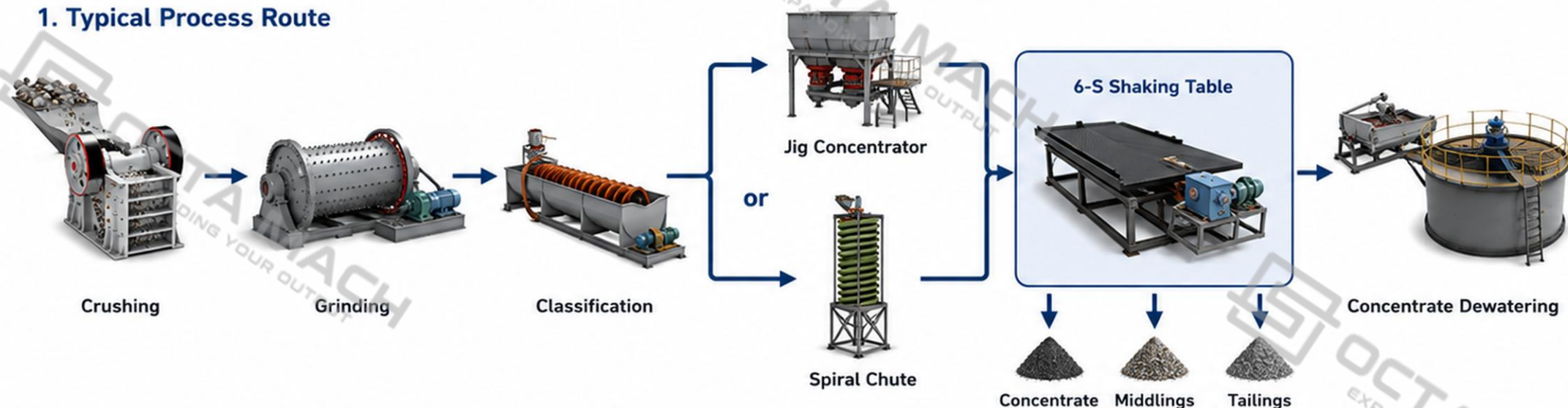
Confirmed slurry concentration: 15–30%



Stable separation requires coordinated adjustment of feed condition, deck motion, inclination and wash-water flow.

Process Position and Selection Criteria

1. Typical Process Route



2. Selection Criteria

1 Ore and Feed Characteristics

- Mineral Composition
- Density Difference
- Liberation Size
- Particle-Size Distribution
- Slurry Concentration

Determines whether gravity separation is feasible and whether the feed is sufficiently prepared.

2 Separation Duty

- Roughing
- Cleaning
- Scavenging
- Target Concentrate Quality

Defines deck loading, adjustment priorities and possible reprocessing stages.

3 Plant Interfaces

- Wash-Water Supply
- Upstream Classification
- Feed Box
- Product Launderers
- Pumps and Sumps
- Dewatering Equipment

Determines how the shaking table connects with the complete process circuit.



Representative ore testing is recommended before final selection.

Ores containing the same valuable mineral may respond differently because of liberation, particle shape, density contrast and gangue composition.

Installation and Operating Checklist

1 Foundation and Layout

- ☐ Rigid and level foundation
- ☐ Clearance for full deck movement
- ☐ Access space around the reciprocating drive
- ☐ Correct feed-box elevation
- ☐ Separate concentrate, middling and tailings discharge routes
- ☐ Secure support-frame anchoring
- ☐ Confirmed water and electrical connection points

2 Feed and Operating Control

- ☐ Stable feed flow
- ☐ Controlled particle-size distribution
- ☐ Stable slurry concentration
- ☐ Uniform feed distribution across the deck
- ☐ Stable wash-water pressure
- ☐ Even wash-water distribution
- ☐ Correct stroke setting
- ☐ Correct stroke-frequency setting
- ☐ Correct transverse deck inclination

Confirmed adjustment ranges

Stroke: 10–30 mm

Deck inclination: 0–8°

Feed size: 0.074–2 mm

Stroke frequency: 240–360 times/min

Wash-water requirement: 0.4–0.8 t/h

Slurry concentration: 15–30%

3 Inspection and Maintenance

- ☐ Lubrication and drive condition
- ☐ Drive fasteners and connecting parts
- ☐ Deck surface condition
- ☐ Riffle wear and damage
- ☐ Feed-box blockage
- ☐ Water-distribution openings
- ☐ Concentrate, middling and tailings launder condition
- ☐ Abnormal vibration or noise
- ☐ Loose bolts and structural movement

Installed 6-S Shaking Table



Long riffled deck, drive, support frame, feed and product launders.

⚠ Operating Warning

**Adjust one operating variable at a time.
Observe the concentrate, middling and
tailings bands before making the next change.**

Simultaneous changes to stroke, frequency, slope and wash water make operating results difficult to evaluate.