

TUMBLER SCREENING MACHINE – TSM SERIES

The TSM series employs a unique 3D tumbling motion with slow speed and large amplitude, closely mimicking hand screening. This series is ideal for fine classification of ultra-fine, lightweight, fragile, and other challenging powders and granular materials.



High Capacity and Efficiency

Simultaneous classification of up to 6 fraction sizes, achieving screening efficiency of up to 95%.

Low Acceleration

Gentle screening with lower vibration acceleration than traditional vibrating screens, making it ideal for fragile materials while ensuring longer screen parts life and reduced maintenance requirements.

Rapid Screen Exchange

The optional pneumatic deck lifting devices enables rapid and easy screen replacement by a single operator.

Less Blinding

Multiple mesh-cleaning options are available, including bouncing balls, rotating roller brushes, rotating air nozzles and ultrasonic cleaning devices as well as combined cleaning systems.



Multiple Material and Surface Options

Options include powder-coated carbon steel, 304/316L stainless steel with bead-blasted or polished finishes, and contact surfaces coated with specialized materials such as Teflon or nano-ceramics.

3D TUMBLING MOTION

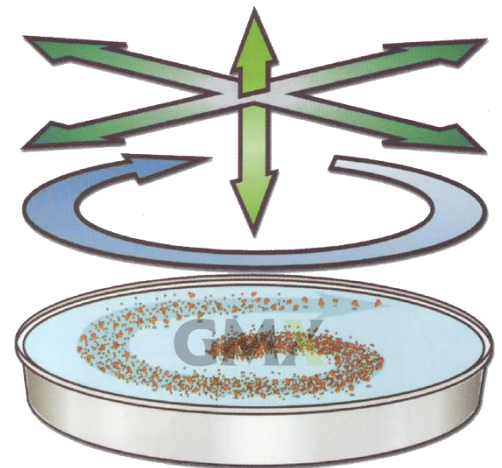
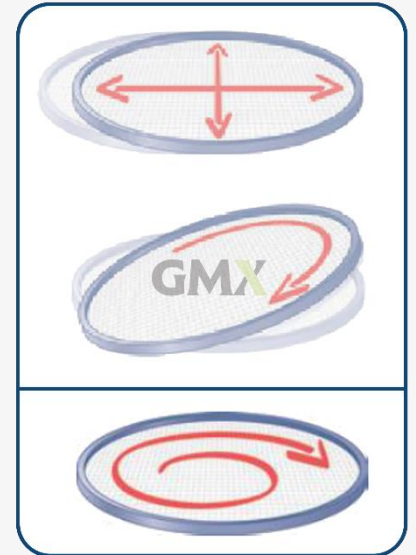
The TSM Series simulates manual shaking by combining radial and tangential inclinations to create a unique 3D tumbling motion.

This movement disperses materials evenly from the center to the edges in an involute spiral, allowing finer particles to pass through the mesh at the center.

As materials move outward, horizontal and vertical acceleration increase, effectively separating particles close to the mesh opening. The remaining oversized particles are carried to the discharge.

An adjustable deflector on the mesh controls material flow and residence time, further enhancing separation efficiency.

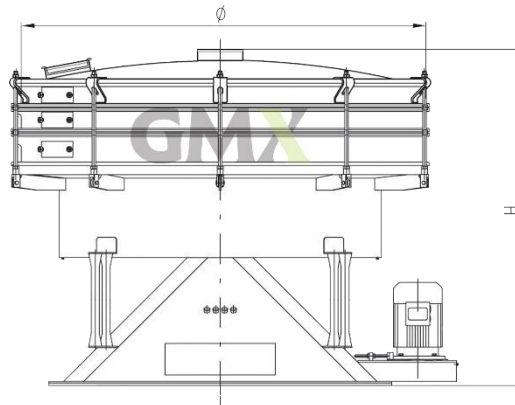
This process is repeated across each screen deck for optimal performance.



Datasheet

Mesh opening	2-500 mesh
Max capacity	10 t/h
Operating speed	180-280 rpm
No. screen decks	1-5 per machine
Materials	304/316L Stainless steel; Carbon steel; Rubber materials FDA compliant
Surface options	Powder coating; Polishing; Bead blasting; Other specialized coating applied to material contact surfaces
Anti-blinding devices	Bouncing balls; Rotating roller brushes; Rotating air nozzles; Ultrasonic cleaning devices; Combined cleaning systems

Dimensions



Types		TSM 1200	TSM 1500	TSM 2000	TSM 2600
Mesh surface	m ²	1.13	1.85	2.63	5.3
Engine performance	kW	2.2	3	4	7.5
Weight	kg	500-900	860-1,420	1,300-1,940	1,700-2,500

Measurement

Measurement	Unit	TSM 1200	TSM 1500	TSM 2000	TSM 2600
ØD (Overall diameter)	mm	1,250	1,580	2,080	2,650
A (Base height)	mm	728	716	840	845
H (Overall height)					
1-Deck	mm	1,230	1,270	1,425	1,560
2-Deck	mm	1,390	1,430	1,590	1,750
3-Deck	mm	1,550	1,590	1,755	1,940
4-Deck	mm	1,710	1,750	1,920	2,130
5-Deck	mm	1,870	1,910	2,085	2,320