

GW750-2
Vibratory Pneumatic Tire Roller

SAKAI



**Double Axle Pneumatic Tires
Vibrate and Drive**

Great on Contemporary HMA Mixes & Soil

**Total Force Higher Than a 27 Ton
Static Pneumatic**

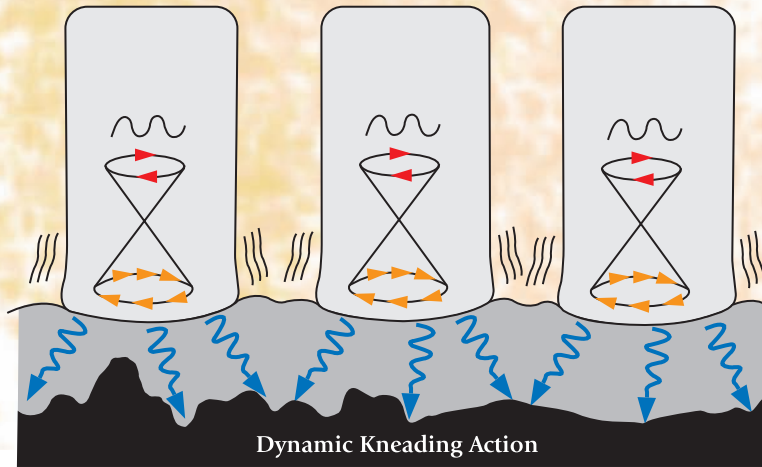
Save Big on Trucking and On-Site Fuel

77-Inch Rolling Width

Dual, Rustproof Spray System

Amplitude Modes	Amplitude (ins)	Centrifugal Force (lbs)	Equivalent Compaction Efforts to a Static Rubber Tire Roller (lbs)	Applications (Examples)
Static	0	0	equal to 20,580	Overlays & thin HMA layers, less than 2 inches
Amplitude 1	0.008	2,500	approximately equal to 28,000	
Amplitude 2	0.015	5,000	approximately equal to 38,000	
Amplitude 3	0.020	7,500	approximately equal to 46,000	Binder and base course layers, greater than 2 inches
Amplitude 4	0.028	10,000	greater than or equal to 55,000	

Vibratory Pneumatic Tire Roller



The NEW Sakai GW750-2

Vibratory Pneumatic Tire roller is perfect for use on breakdown and intermediate passes on Superpave and other perpetual pavement applications. This new model—the only one of its kind in the world—develops a new dynamic gyratory action that combines the field-proven kneading action of a pneumatic tire roller with the high forces generated by a vibratory roller. It develops the compactive effort equal to or greater than a 55,000-pound static pneumatic tire roller.

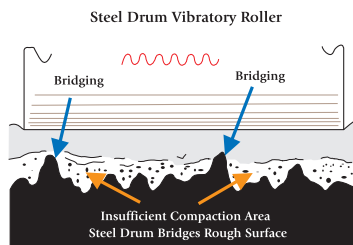
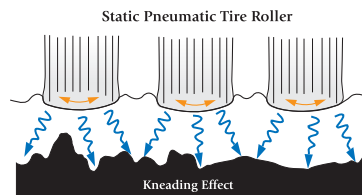
End User Benefits

• **Vibrating Tires Create Uniform Density in Depth** – The GW750-2 features three vibrating pneumatic tires on the front axle interspersed with four on the rear, for a total overlap coverage and rolling width of 77”.

Obtaining uniform density throughout the pavement layer thickness is a key factor in obtaining a bonus payment. The Sakai GW750-2 combines the benefits of static pneumatic tires with vibration to achieve a balanced high density from top to bottom of a typical HMA lift. It also develops the kneading action of a pneumatic tire roller

for density and smoothness across the jobsite. The value of this new combination of forces is proven by core samples taken on the jobsite.

The process will also overcome the potential problem of bridging, typically found with HMA overlays of profiled pavements, where the mix does not seat properly in the grooves. The dynamic kneading action of the GW750-2 “massages” the mix into these milled surfaces for a much-improved interlock of the new mix with the profiled surface and integrated density of the newly combined foundation.



• Super on Superpave –

Recommendations for use of conventional pneumatic tire rollers as intermediate rollers in a Superpave train generally don’t work because the pneumatic roller slows up a process that requires speed to succeed. To avoid these bottlenecks, Sakai has determined that the combination of two Sakai high frequency double drum vibratories and one GW750-2, followed by one Sakai R2H-2 Balanced Three-Wheeler, is the perfect combination for overcoming both tender mix problems, giving the contractor the ability to move fast and make bonuses on incentive-based projects. For more information on suggested rolling patterns for this equipment, please ask for Sakai’s brochure entitled “New Super Rollers for Superpave Mix”.

On stiffer HMA mixes where a higher percentage of crushed aggregates break down faster under the dynamic kneading action of the new roller, the GW750-2 has also been proven very effective. The GW750-2 is also excellent on SMA mix designs.

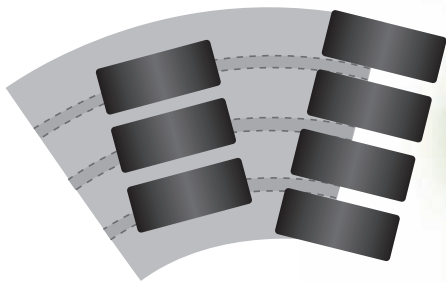
• Unique Eccentric Weight Design –

The Sakai GW750-2 offers a totally new vibration concept that allows the pneumatic tires to be vibrated. This new system employs a typical vibratory motor and shaft arrangement. The shaft drives an eccentric shaft system that is housed within the tire assemblies. A unique switching system enables the operator to select from a choice of five different force settings from 20,580 pounds static force to over 55,000 pounds total applied force, switchable right from the operator’s station. The unique vibration of the special pneumatic tires combined with the long-proven bulbous effect, develops a compaction effort equal to that of a conventional 27.5-ton pneumatic tire roller, with far less fuel required and far less trailer.

• **All-Wheel Drive** – Both axles of the GW750-2 are driven hydrostatically. In addition to the excellent traction capabilities of this system, the driven tires eliminate the bow wave build up and hairline cracking typical of non-driven drums or tires. All-wheel drive also permits effective operation in either the forward or reverse directions without marring the hot mat. Super flat, 14" wide tires developed by Sakai specifically for this machine provide ample coverage and overlap for a smooth surface finish.



• **On-Track Steering** – The articulated steering system of the GW750-2 is designed so that the front and rear tires track precisely for even compaction and optimum smoothness over the 77" wide coverage of the machine. The system offers a tight outer turning radius of 213" - excellent for maneuvering around tight turns without shoving material due to hydrostatic differential effect. In addition, the dual variable flow motors in the rear of the machine compensate for the speed differential between the outer and inner tires and further eliminate pushing and shoving of the mat.



• **Dual Spray Systems** – Sakai asphalt rollers offer the most reliable pressurized spray systems available. The GW750-2 features dual spray systems located over both the front and rear tires - providing both a pressurized release agent and pressurized water. The release agent prevents picking up the hot mix on cold tires and is activated by a switch at the operator's station. Like all Sakai spray systems, the GW750-2 includes ample water reservoirs, convenient back-up pumps and brass spray nozzles that are quick and easy to clean or replace on the job.



• **Efficient Engine** – The GW750-2 is powered by a powerful yet fuel-efficient 123 horsepower Isuzu water-cooled turbocharged diesel engine. This engine fully complies with current emission standards. The engine is mounted on rubber isolators to absorb vibration. The engine doors are noise-suppressed and fully open for safe, simple maintenance from the ground level.

• **Dual Fuel Savings** – Aside from the need for a bigger trailer to pull your big static roller, a Sakai GW750-2 will also save you big fuel dollars once on site – double the fuel savings in today's tough economy.

High Safety Standards

Sakai believes that operator safety is a high priority. ROPS and seat belts are standard equipment on every Sakai roller sold in North America.

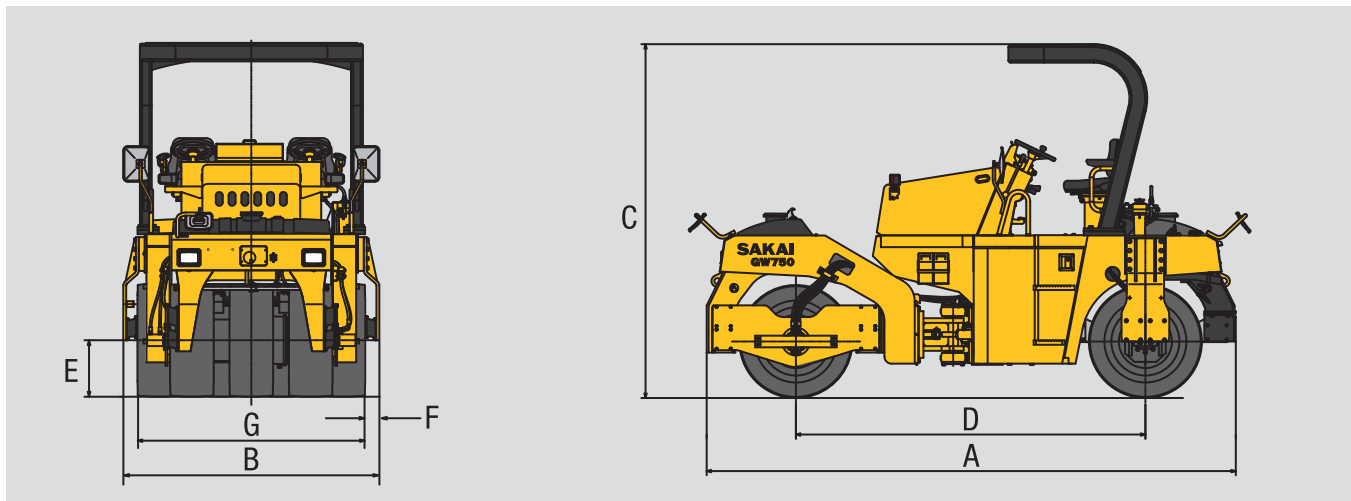
Operator Comfort

The GW750-2 Series operator's station is a rubber-isolated floating deck designed to minimize the transmission of vibration to the operator and to reduce fatigue. Accessible from both sides of the machine, the operator's station consists of dual seats and dual instrumentation - ensuring that all controls are conveniently located and within easy reach and view of the operator.

• **Superior Serviceability – Fast Support** – Sakai has been building high quality construction equipment since 1918. We manufacture more vibratory compactors annually than anyone else in the world. Sakai stocks component parts for all its products that, if necessary, are available via over-night dispatch from its North American Headquarters in Georgia. Call (800)-323-0535 for prompt assistance with all your application or service needs.



MODEL		GW750-2
Operating Weight	lbs / kg	20,370 / 9,240
On Front Axle	lbs / kg	8,730 / 3,960
On Rear Axle	lbs / kg	11,640 / 5,280
Vibration Frequency	VPM / Hz	2,400 / 40
Centrifugal Force	lbs	0-10,000
in Five Ranges	kN	0-44.8
Force Equivalents	lbs	0-55,000
to Static Rollers	kN	0-244.6
Nominal Amplitude	inches	0-0.029
	mm	0-.74
Engine Make & Model		Isuzu 4JJ1XDIA
Horsepower	hp / kW	123 / 91.7
Maximum Speed	mph / kmh	5.6 / 9.0
Gradability	percent	38
Tires		14/70-20-12PR(OR)
Fuel Tank Capacity	gallons / liters	34 / 129
Spray System Capacity	gallons / liters	158 / 598
Braking Types		Dynamic Hydrostatic, Wet Disc, SAHR with Footbrake
Steering Type		Center-Point Articulated with Heavy-Duty Hitch
Articulation Angle	degrees	37
Outside Turning Radius	inches / mm	213 / 5,410
Inside Turning Radius	inches / mm	136 / 3,454
Oscillation Angle	degrees	6.0/6.0
DIMENSIONAL DATA		
Overall Length A	inches / mm	179 / 4,547
Overall Width B	inches / mm	87 / 2,210
Overall Height C	inches / mm	119 / 3,023
Wheelbase D	inches / mm	118 / 2,997
Curb Clearance E	inches / mm	19 / 483
Side Overhang F	inches / mm	5.0 / 127
Rolling Width G	inches / mm	77 / 1,955



SAKAI

MASTERS OF COMPACTION

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