

# OSCILLATION

QUICKER COMPACTION  
AND COST SAVINGS

## WHAT IS OSCILLATION?

Oscillation is a dynamic compaction method that has significant advantages over traditional vibratory compaction.

- Motion enables the drums to maintain constant contact throughout compaction
- Uses less force but delivers both vertical and horizontal energy, essentially massaging the aggregates into place
- Excels on sensitive jobsites, such as bridges or when working over sewers or utility lines
- Can work on mats that are too hot or cold for traditional compaction methods
- Seals joints without damaging cold mats

## CONSTANT CONTACT

The oscillation drum has 2 eccentric shafts removed as far as possible from the main axis of the drum. Both rotate in the same direction and generate a rotational vibration, called oscillation. The motion enables the drums to maintain constant contact throughout compaction. This is a significant departure from vibratory compaction, in which the drums lose contact with the ground after each impact.

The more often the drum is in contact with the surface, the more compaction is occurring beneath it.

## MASSAGING

Compaction is the process of moving materials more closely together. Traditional vibration tries to accomplish this through a harder pounding in a mostly vertical direction.

Oscillation delivers less force but uses both vertical and horizontal energy. Compaction occurs more quickly when forces are applied from different directions.

Oscillation essentially massages the aggregates into place.

OSCILLATION



## KEY FEATURES

- Constant contact throughout compaction
- Vertical and horizontal energy
- For sensitive jobsites
- For mats that are too hot or cold
- Seals joints

**AMMANN**

OSCILLATION  
QUICKER COMPACTION AND COST SAVINGS

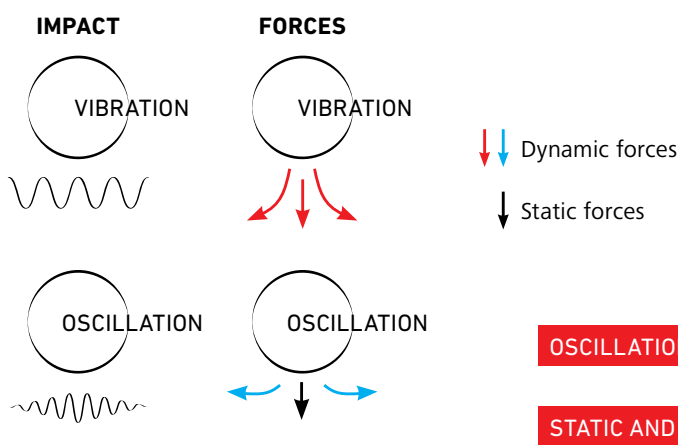
TECHNICAL VIEW

- High quality, hardened steel enables long life
- Shaft deflection extends bearing service life
- Large grease reservoir makes bearings maintenance-free for life of roller
- Precise belt tension lengthens service life
- High efficiency design generates less heat and consumes a third less energy than traditional vibratory rollers
- All oscillation parts are maintenance-free
- Life for all parts exceeds 7000 hours
- Eccentric movements create higher drive efficiency

MANY TECHNOLOGIES FROM A SINGLE SOURCE

Every jobsite has especial requirements, and only Ammann offers many different technologies.

- Ammann Compaction Expert (ACE), circular exciter with automatic controlled variable amplitude and frequency
- Circular exciter with 2 amplitudes/frequencies
- Combination axle with 4 smooth tyres
- High-frequency technology
- Split drum / unsplit drum
- Oscillation



HOW WOULD YOUR BUSINESS BENEFIT FROM OSCILLATION?

**Sensitive settings**

Because oscillation does more massaging than it does pounding, it is often the method of choice on sensitive jobsites such as bridges, or when working over sewers or utility lines.

**High temperatures**

Oscillating rollers can work on hot mats. This widens the compaction window for crews and helps them quickly get to work on thin lifts, such as those placed on bridges.

**Cool temperatures**

The “softer” approach of oscillation prevents damage to cooler mats.

**Joint work**

Rollers with oscillation are great fits for sealing cold joints. The drum simultaneously can work on the hot and cold mats, so it delivers the best of both worlds. The massaging approach prevents damage to the cold mat but applies enough energy to compact the hot materials – and seal the joint, too.

**Operator friendly**

Rollers with oscillation automatically adjust to compaction needs, removing some of the burden from operators. The longer compaction window also gives operators a margin of error as they keep pace with the paver and other rollers.

**Production**

Oscillation doesn’t pound like a vibratory roller, but it ultimately delivers more force into the mat because it uses both vertical and horizontal energy. That increased force means quicker compaction and fewer passes. The constant contact with the surface helps too.

**Smoothness**

Vibrating drums can leave “chatter” behind; oscillating rollers do not.

**Cost savings**

Reducing the number of passes saves on labor, machine wear and fuel. It also helps keeps jobs on track – and customers happy.