



January 24, 2019

HOPPER COMBO/SKID - GRAVEL BASE FOUNDATION REQUIREMENT

Meridian hopper bottoms installed with steel foundations require proper site preparation to prevent damage or possible overturning of the bin. Please review the following recommendations carefully.

- The site should be in a well-drained location with all silt, organic, and loose soil removed. Topsoil should be excavated to a depth equivalent to the depth of the gravel base specified below.
- Provide a compacted gravel base of sufficient depth and bearing capacity as follows:
 - 21ft dia. hopper (23ft max. wall height) – 18 in. depth at 4500 lb/ft²
 - 24ft dia. hopper (23ft max. wall height) – 24 in. depth at 5000 lb/ft²
 - 27ft dia. hopper (23ft max. wall height) – 30 in. depth at 6000 lb/ft²
- The gravel base should extend beyond the inner and outer perimeter of the foundation a distance equal to the depth of the gravel base.
- The compacted gravel base must be level within $\pm 3/8$ ". This condition must be maintained even after loading in order to prevent damaging eccentric loading.
- The foundation must contact the gravel base at all points around its perimeter. Gaps between the foundation and the gravel are not acceptable.
- The assembled foundation, hopper, and bin should be anchored to prevent the overturning from wind when empty.

The above specifications are minimum requirements to maintain warranty. However, due to variable soil conditions and installation details, Meridian advises that a qualified engineer be consulted to approve each foundation installation.