Sealing systems are an essential part of the design and performance of the roller as part of a conveyor system. Idler roller seals must ensure that the bearings are protected from water and dirt, and ensure that resistance to rolling is limited.

The roller seal works in conjunction with the seal specification of the bearing. Melco rollers are fitted with Rulmeca standardised seals in the Contactless or Hermetic styles.

Seal system components are manufactured with a combination of POM and Nylon materials.

**Contactless sealing system**
Lowest drag and breakaway mass.
The seal is a multi-labyrinth system that ensures that any dirt has to follow a long path to arrive at the bearing. The contactless design gives a extremely low running resistance.

Long overland conveyors require the lowest resistance to motion with rollers being exposed to less water and dirt.

**Hermetic sealing system**
Optimal drag with better seal.
The seal is a multi-labyrinth system the same as the contactless seal with the addition of a lip-style contact seal to provide a positive seal to water and dirt ingress.

Plant style conveyors are often subjected to dirt, water and high pressure washing. The hermetic sealed idler rollers will have a longer life in these conditions.

**Flinger seals**
Additional sealing can be provided in applications with high water and dirt content EPDM deflector seals can be retrofitted to rollers.

**Bearings:**
Deep Groove ball bearings are used as standard. Bearing seal configurations - Open, ZZ or 2RS bearings can be used in variety of bearing brands. Available in a variety of brands.

**Breakaway Mass (grams)**
SANS 1313 Standard : 250 g
Melco Average : 47 g

**Average Running Friction Force (N)**
SANS 1313 Standard : 2.7 N
Melco Average : 0.99 N

The Melco Research and Development laboratory performs regular tests to assess various technical aspects of roller performance, including TIR, load running tests, breakaway and running resistance tests.