

# TECH BRIEF

## Drag Chain vs. En-masse

What is the Functional Difference Between a Drag Chain and En-Masse Conveyor?

### How Does a Drag Chain Conveyor Operate?

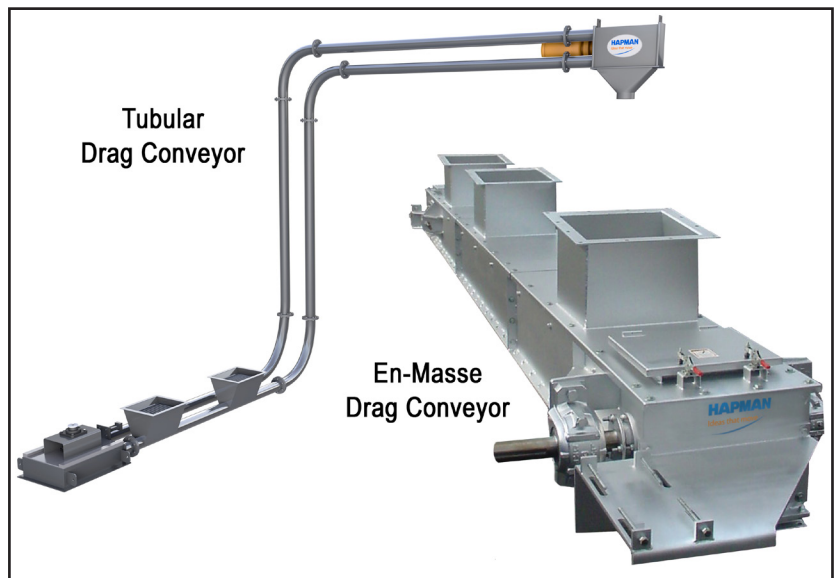
The principle operation of a drag chain conveyor is based on material movement using a skeletal chain and flight assembly that is drawn along the bottom section of an enclosed housing. Drag conveyors are an optimum choice for bulk processors, power producers, cement manufacturers, and minerals processors for conveying efficiency and enclosed housing.

Unlike a belt conveyor, a drag conveyor uses nearly 50% of the available space inside the conveyor housing for material movement, while a belt conveyor only uses about 20%. This means that a greater volume of material can be moved in a smaller housing at slower speeds and with less horsepower. Slower chain speed means less wear, and less horsepower equals lower energy requirements and operating costs. Some of the features can include the conveyor size, flight selection, housing, high-temperature components, diverting discharge points, and single- or dual-chain layout.

### How Does an En-Masse Drag Conveyor Operate?

En-Masse drag conveying works by pulling a single strand of endless chain centered in an enclosed housing with flights attached on both sides of the chain (skeletal looking) through a rectangular section of a bulk solid material.

The bulk solid is conveyed by the motion imparted on the bottom surface of the trough by the chain and the shear friction between the particles of the bulk solid material conveyed. The En-Masse drag conveyor is not limited to conveying En-Masse; there are many applications where the bulk solids



capacity that is required or the conveyor configuration isn't practical, but in a lot of these cases the single-chain strand with skeletal flights is a very good and reliable solution for conveying needs. In other words, EnMasse drag conveying is one type of operating principle of a drag conveyor.

With an En-Masse Drag Conveyor, you'll have the ability to move large volumes of bulk materials in any layout or direction, providing exceptional flexibility to achieve all of your bulk material handling objectives.

Some of the benefits of these versatile conveying systems include:

- Moving up to 1,000 TPH in a single system.
- Using the longest-wearing, drop-forged chain in the industry.
- Conveying a wide range of materials from ash to zinc.
- Conveying in an enclosed, long-lasting, abrasion-resistant housing.
- Conveying high volumes in a small footprint.

### **Trust Hapman for all of Your Company's Drag Conveyor Needs**

Hapman is one of the industry's leaders in providing companies with drag conveyor systems for their specific bulk material handling needs. Hapman draws on decades of experience to manufacture outstanding equipment which is built to last. We're proud of our 98.9% success rate and look forward to hearing from you. Contact us today to learn more about our drag conveyor systems.

## **ABOUT HAPMAN**

For 70 years, Hapman has provided manufacturing plants around the world with the most technologically advanced powder and bulk handling equipment and systems, offering custom engineered equipment and systems for chemical, food, pharmaceutical, plastics, building, minerals, and other industries.

# **HAPMAN**

Ideas that move.



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