



Martin

CEMENT

CAPABILITIES

Applications:

Conveying

Screw Feeders

Silos

Stock Piles

Hoppers

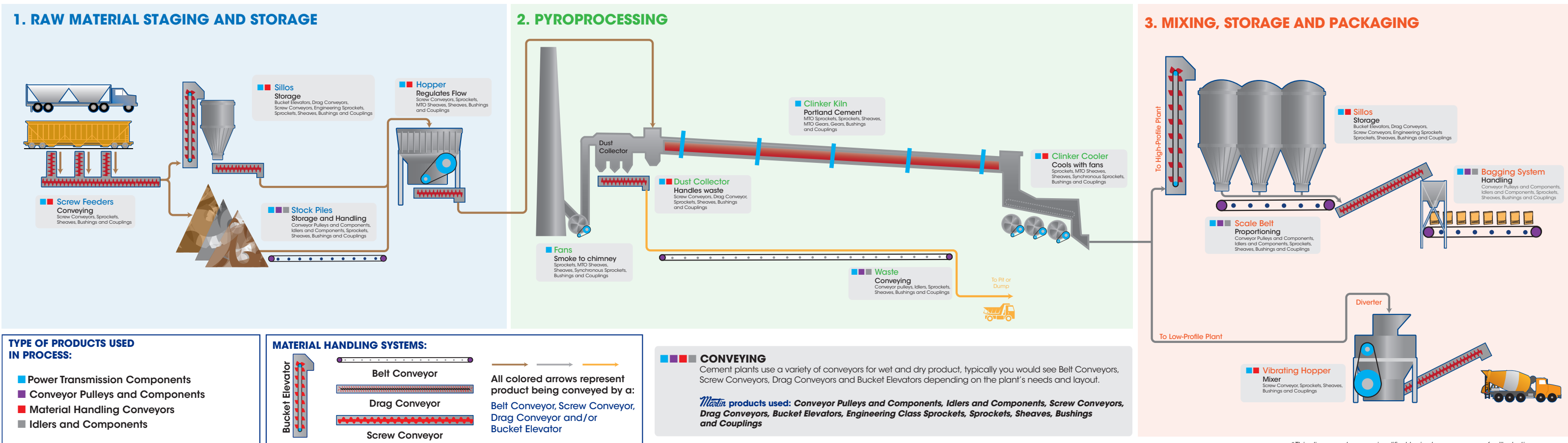
Kilns / Dryers

Scale Belts

Shaker Hoppers

Bagging Systems

Martin CEMENT PLANT FLOW DIAGRAM



TYPE OF PRODUCTS USED IN PROCESS:

- Power Transmission Components
- Conveyor Pulleys and Components
- Material Handling Conveyors
- Idlers and Components

MATERIAL HANDLING SYSTEMS:

All colored arrows represent product being conveyed by a:
 Belt Conveyor, Screw Conveyor, Drag Conveyor and/or Bucket Elevator

CONVEYING

Cement plants use a variety of conveyors for wet and dry product, typically you would see Belt Conveyors, Screw Conveyors, Drag Conveyors and Bucket Elevators depending on the plant's needs and layout.

Martin products used: Conveyor Pulleys and Components, Idlers and Components, Screw Conveyors, Drag Conveyors, Bucket Elevators, Engineering Class Sprockets, Sprockets, Sheaves, Bushings and Couplings

1. RAW MATERIAL STAGING AND STORAGE

- Screw Feeders**
 Materials are brought in by truck or rail and the material is unloaded and transported by Screw Feeders.

Martin products used: Screw Conveyors, Sprockets, Sheaves, Bushings and Couplings
- Silos**
 The material is stored in silos, which are loaded from the top, typically requiring Bucket Elevators or Drag Conveyors.

Martin products used: Bucket Elevators, Drag Conveyors, Screw Conveyors, Engineering Sprockets, Sprockets, Sheaves, Bushings and Couplings
- Stock Piles**
 In some plants the material is stored in Stock Piles. These piles are typically loaded and unloaded by Belt Conveyor.

Martin products used: Conveyor Pulleys and Components, Idlers and Components, Sprockets, Sheaves, Bushings and Couplings
- Hopper**
 Raw materials enter the loading hopper and through a Screw Feeder are loaded onto the conveyor leading to the Kiln.

Martin products used: Screw Conveyors, Sprockets, MTO Sheaves, Sheaves, Bushings and Couplings

2. PYROPROCESSING

- Clinker Kiln**
 The clinker is made by heating a homogeneous mixture of raw materials in a rotary kiln at high temperature. For Portland cement clinker a little gypsum is added after.

Martin products used: MTO Gears, MTO Sprockets, Gears, Sprockets, Sheaves, Bushings & Couplings
- Dust Collection**
 Dust particles are recollected in the dust collection chambers and later disposed back to the mine pit or dump.

Martin products used: Screw Conveyors, Drag Conveyor, Sprockets, Sheaves, Bushings and Couplings
- Fans**
 Fans extract the smoke from the Kiln to the chimney.

Martin products used: Sprockets, MTO Sheaves, Sheaves, Synchronous Sprockets, Bushings and Couplings
- Clinker Cooler**
 After the kiln the material is cooled on a special conveyor with large industrial fans.

Martin products used: Sprockets, MTO Sheaves, Sheaves, Synchronous Sprockets, Bushings and Couplings
- Waste**
 The waste is returned to the mining pit or taken to a dump site/tailling.

Martin products used: Conveyor Pulleys, Conveyor Pulley Components, Idlers, Idler Components, Sprockets, Sheaves, Bushings and Couplings

3. MIXING, STORAGE AND PACKAGING

- Silos**
 The material is stored in silos, which is loaded from the top, typically requiring Bucket Elevators or Drag Conveyors.

Martin products used: Bucket Elevators, Drag Conveyors, Screw Conveyors, Engineering Sprockets, Sprockets, Sheaves, Bushings & Couplings
- Scale Belt**
 Special Belt Conveyors with a scaling system proportion the materials.

Martin products used: MTO Conveyor Pulleys, Conveyor Pulleys & Components, Idlers & Components, Sprockets, Sheaves, Bushings & Couplings
- Vibrating Hopper**
 Here the material is mixed before the product is sent to a truck.

Martin products used: Screw Conveyors, Sprockets, MTO Sheaves, Sheaves, Bushings & Couplings
- Bagging Belt System**
 Special Belt Conveyor system where the bags are filled with material and transported to their storage or shipping.

Martin products used: MTO Conveyor Pulleys, Conveyor Pulleys & Components, Idlers & Components, Sprockets, Sheaves, Bushings & Couplings

Martin Products at Work in the Cement Industry



Roller Chain Sprockets



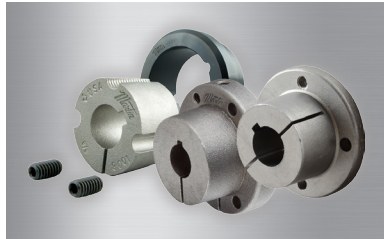
Engineering Class
Sprockets



Gears



MTO Gears



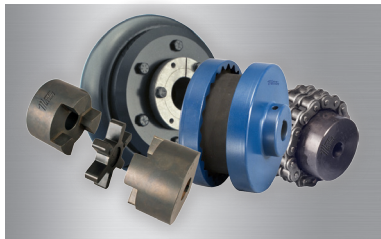
Bushings



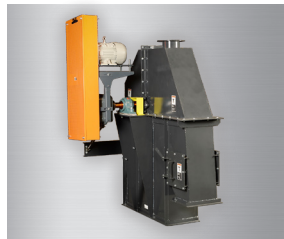
Sheaves



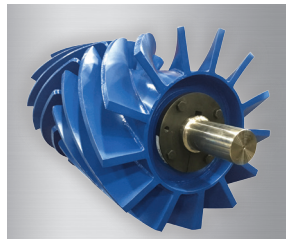
MTO Sheaves



Couplings



Bucket Elevators



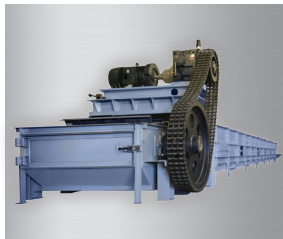
Clean Flight Wing Pulley



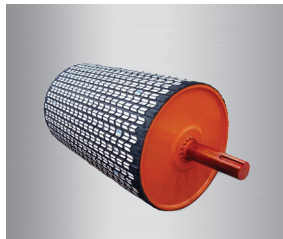
Screw Conveyors



Shaftless Screw Conveyors



Drag Conveyor



Conveyor Pulleys



Idlers

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