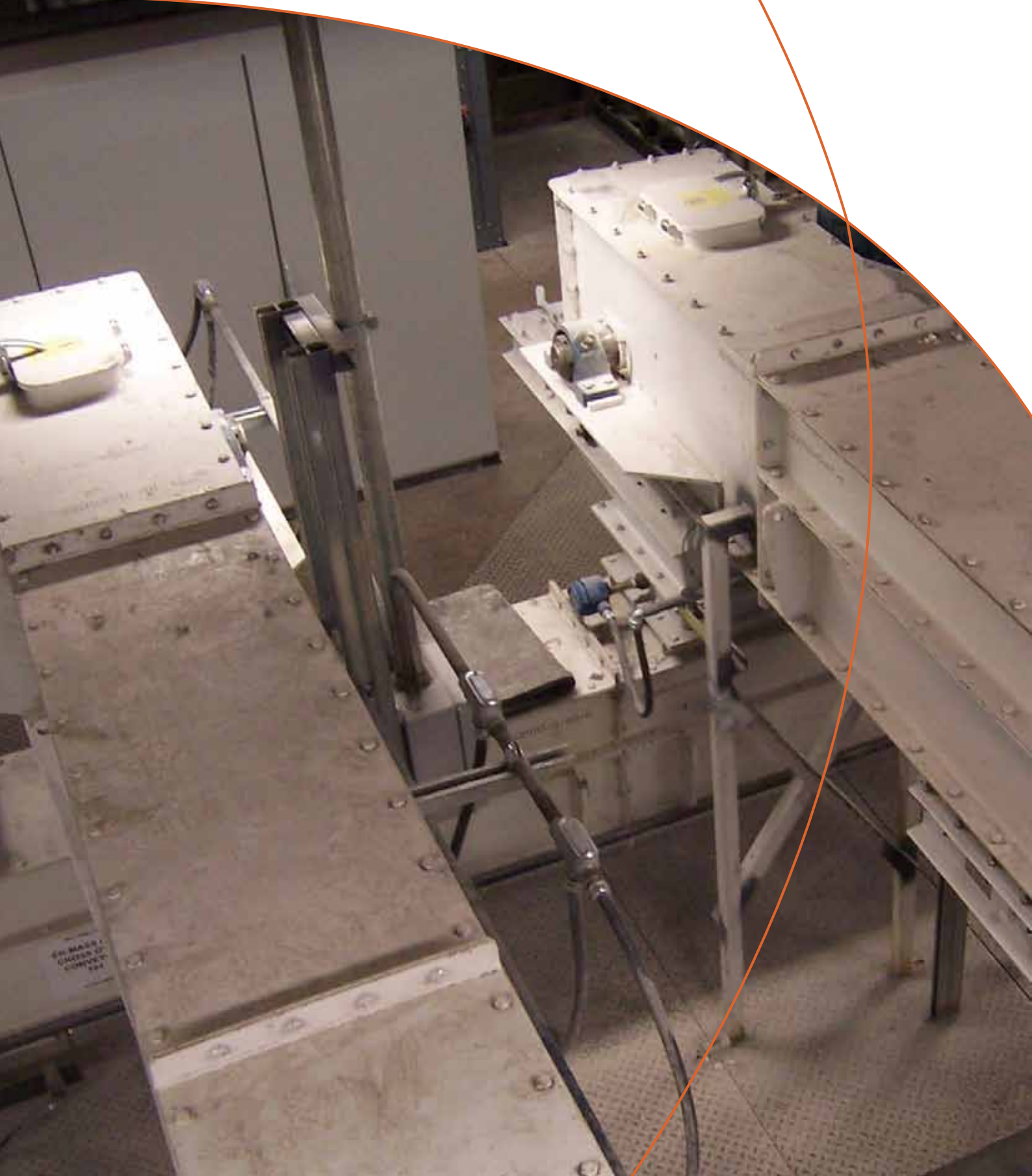


En-Masse Conveyors and Elevators





Proven Performance with over 70 years of experience in thousands of applications

En-Masse Conveyors and Elevators

Metso en-masse conveyors and elevators are the industry standard featuring a highly flexible design that allows a single machine to replace several conventional units. They can be used for both horizontal and vertical conveying of virtually any free-flowing bulk material. Capacities at over 600 tons per hour are possible in a single machine, at material temperatures up to 900° F.

An Economical Solution

Our en-masse conveyors are designed to offer the most dependable, efficient and economical solution for your material handling requirements.

Plant Simplicity

Metso en-masse machines combine conveying with elevating, performing the work of multiple conventional units. This results in greater overall system availability, headroom savings from the elimination of transfer points, lower installation costs, reduced space requirements, and less electrical wiring and controls.

Totally Enclosed Casings

Material is contained within the casing for dustless conveying, assuring that neither the material nor the outside environment are contaminated.

Enclosures can be made to withstand internal pressures. This allows purging with inert gas to minimize the risk of fire or explosion when handling hazardous or dusty materials.

All moving machine parts are housed within the casing or enclosed in guards. This ensures maximum safety for plant personnel.

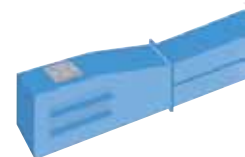
Gentle Handling

Material moves “en-masse” in a solid placid column along with the conveying chain. This provides for a minimum of internal turbulence in the material. Very little degradation of the material occurs when turbulence is reduced.

The unique U-flight design of Metso en-masse conveyors and elevators allows the material column to change direction through a bend section. Solid flights would trap material, causing compaction, degradation and excess power consumption. This is especially significant when handling incompressible materials.

Multiple Inlets and Outlets

A single machine can have a series of inlets and outlets for feeding and discharging at intermediate locations. This minimizes transfer points and reduces degradation of friable materials.





Metso en-masse conveyors and elevators provide a completely enclosed distribution and reclamation system for bulk materials. Self feeding capability of Metso en-masse machines eliminates the need for separate feeders at the bin discharge.

Low Maintenance

Maintenance is simple and does not require personnel with a technical background. Slow component wear rates allow for scheduling maintenance several months in advance.

Ease of Installation

Metso en-masse conveyors and elevators have lower erection costs. Casing sections are shipped pre-assembled with the internal terminal machinery factory installed. Shipping pieces are matched-marked and bolt together easily at the jobsite. Minimal supporting steel is required and pits (where required) are shallow. Machinery access is only required at the terminals.

Self-Feeding Capacity

Metso en-masse conveyors and elevators can be designed to feed themselves from hoppers, bins, surge chutes, etc. This self-feeding capability eliminates the need for additional equipment such as feeders or rotary valves.

Rugged Construction

Metso en-masse conveyors and elevators are constructed of robust, long-wearing components, assuring you of high reliability and lower operating costs. Special materials of construction are available, if required, to combat abrasion and corrosion.

Minimal Space Requirements

Metso en-masse conveyors and elevators require much less space than other equipment for any given capacity. This allows for associated equipment to be more economically positioned and results in a savings in construction costs.



Series 1000

Conveyor/Elevators

L Type

The "L" type combination of conveyor and elevator is the most popular configuration since it enables one single piece of equipment to do the work of feeding, conveying and elevating.

Z Type

This is used where space considerations do not allow the use of a combination of L-type and horizontal conveyors. Necessary seals in the drum corner limit the use of this type to specific materials or situations where seals can be monitored.

Vertical Closed Circuit

This style conveys and elevates in a vertical plane. They may be used to distribute to and reclaim from a series of in-line bins with a minimum of handling, breakage, dust and power.

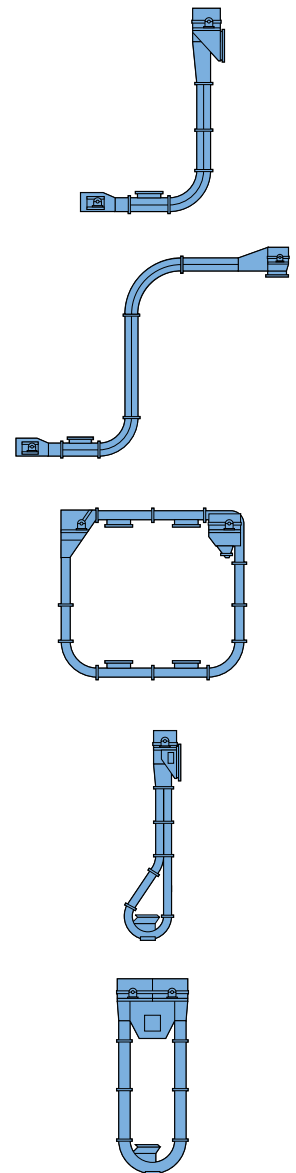
Loop Boot

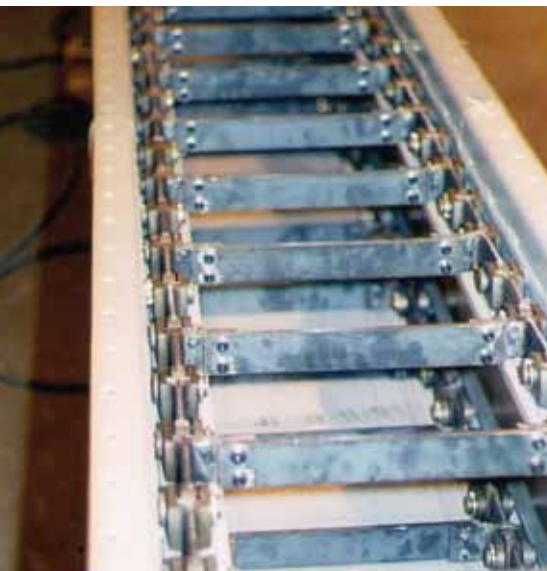
This shape elevator provides the lowest possible feed point for material and requires no feeder, sprockets or bearings at the lower end. The Loop Boot design moves material gently from choke feed to discharge point. When handling aeratable materials, special flat loop boot sections with seal bars are required.

Double Leg Loop Boot

This design features a head section which discharges material from the open side of the flight before the flight reaches the sprocket. Therefore, material is both fed into and discharged from the open side of the flight. This style should be used for handling bulky, fibrous or lumpy material.

Many more configurations available.





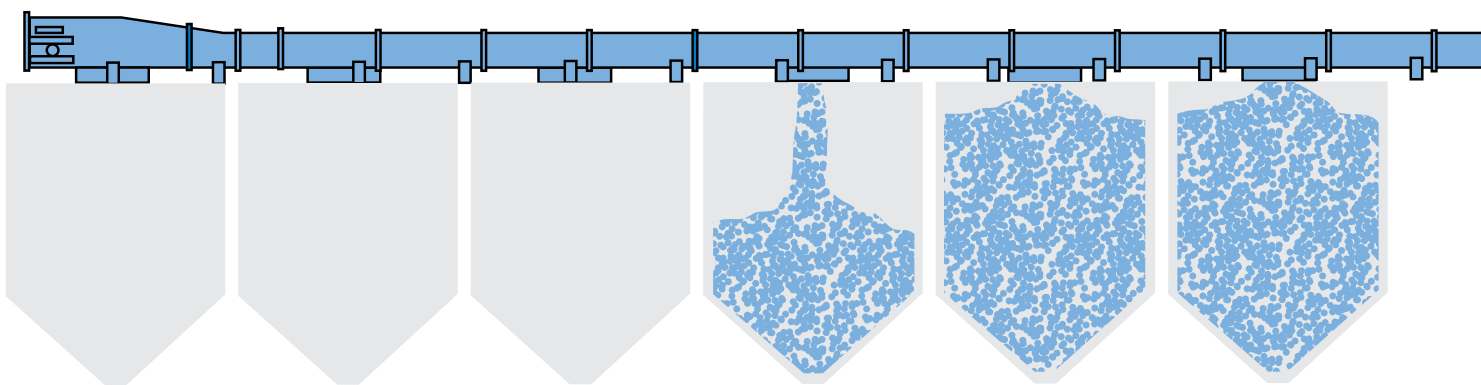
Series 1300

Horizontal Conveyors

Maximum reliability with direct loading and minimum controls.

Metso series 1300 en-masse conveyors are used strictly for conveying, either horizontal or on an incline. These conveyors can have multiple inlets and outlets for feeding and discharging at intermediate locations. They can be combined with other styles of Metso en-masse machines to create a completely enclosed, dust-free handling system.

Series 1300 en-masse conveyors use flat T-type flights. These links are available in various strengths to match the required chain pull. For high strength applications, a forged steel chain with welded mild steel flights are standard. High capacity applications use a double stranded, forged chain with bolted flights. For less demanding applications, a one-piece cast chain with integrally cast flight bars are used. Cast chain is available in malleable iron, stainless steel, alloy steel, and manganese bronze.





Series 2000

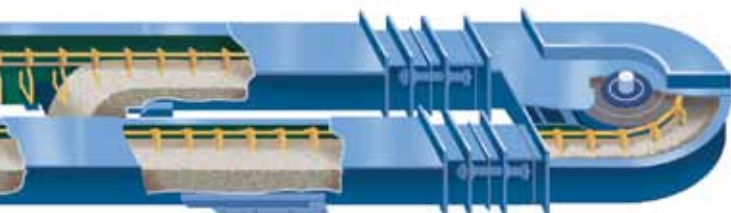
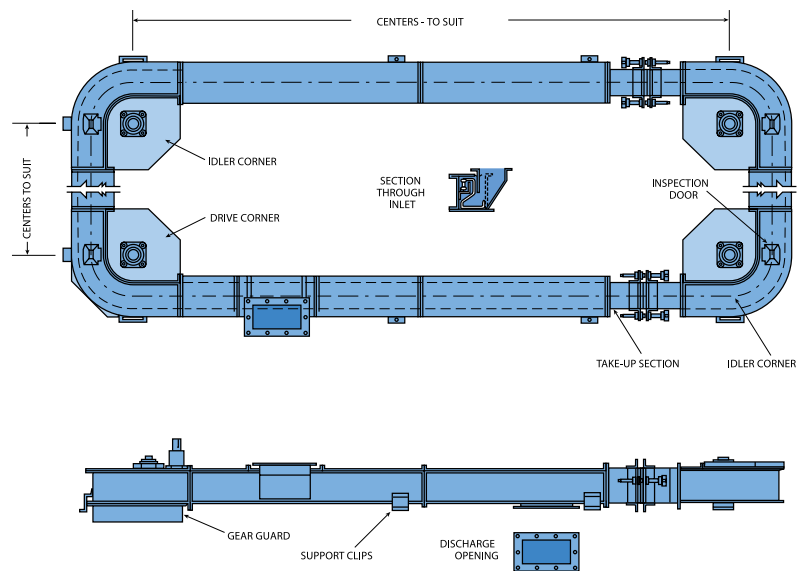
Horizontal Closed Circuit Conveyors

Horizontal closed circuit (side-pull) conveyors may be employed in a wide variety of applications, including storing, reclaiming and serving packaging or processing machines. This style of en-masse distributing conveyor may receive more feed points and discharge at any number of openings.

Side pull flights are used in the Metso series 2000 machines. This unique chain and flight design allows conveying around bends in a horizontal plane without transfer points or loss of head room. Side-pull flights convey material en-masse in the cast flights (several materials available) are mounted on a bushed, steel side bar chain.

When the material load in the conveyor casing is not fully discharged, it recirculates to the feed point where the conveyor accepts only enough new material to complete a full load, avoiding spillage and compaction.

Horizontal closed circuit conveyors are particularly useful in applications requiring product purity, since the conveying element does not contact the casing and conveying chain and supporting track are isolated from the conveyed material.



Metso series 2000 horizontal closed circuit conveyors are capable of receiving from multiple inlets and discharging from multiple outlets. Metal-to-metal contact does not occur within the conveyed material, thus maintaining product purity.





Flights

Conveying Elements

Series 1000

One-piece cast links with integral flights. Malleable iron standard. Optional materials include alloy steel, stainless steel, and manganese bronze

U-Flights*

Standard style for use with most materials.

Web Flights*

For clean out or handling fine materials.

Flat Chain*

For horizontal conveying.

Series 2000

Offset type chain with bushed, steel side bars. Ductile iron flights standard. Optional materials available.

Standard Flight

For handling most materials.

Wiper Flight

With attached strips to clean casing.

Series 1300

Several flight styles available.

Cast Chain*

For light-to-medium duty applications. Malleable iron standard. Alloy steel, stainless steel and manganese bronze optional.

Drop-Forged Chain**†

For medium to heavy duty applications. Also used when handling abrasive materials.

'I' Flight†

For use with wide conveyors, when handling large lumps or where extra chain strength is required.

Floating Chain

For long conveyors and special applications.

†UHMW flights available

*Hard surfacing available on high water surfaces



Web Flights



Expect results

Expect results is our promise to our customers and the essence of our strategy. It is the attitude we share globally. Our business is to deliver results to our customers to help them reach their goals.

