

# Conveyor and Sortation System Maintenance and Safety

## MODULE 3

# CSS: Who We Are

The **Conveyor and Sortation Systems (CSS) Industry Group** members are the industry's leading providers of conveyors, sortation systems, and their components. They design, fabricate, and install conveyor and sortation systems worldwide and in virtually every major manufacturing and distribution sector. CSS prepares and distributes educational and promotional materials regarding the proper application and benefits of conveyor and sortation system solutions. CSS also publishes and promotes materials on the training, inspection, safety and maintenance of conveyors and sortation systems.

The **Vertical Reciprocating Conveyor (VRC) Subcommittee of CSS** is comprised of the industry's leading suppliers of material lifts. They design, manufacture, and install VRCs worldwide for use in a wide variety of industrial, commercial, and institutional operating environments.

## MEMBERS

To meet the current members of the Conveyor and Sortation Systems Group, [click here](#).

# CSS MISSION & VISION STATEMENT

## Mission:

To promote the market growth and effective use of conveyor and sortation systems in manufacturing, warehousing, distribution and other key markets.

## Vision:

To be the recognized independent authority for end users and suppliers on market trends, technology developments, and applications through:

- Education  
On key features, advantages, and benefits
- Key Issues  
Issues affecting our marketplace through user outreach
- Development  
Development and distribution of educational materials
- Collaboration  
Of manufacturers & technology providers
- Promotion  
Promotion of career opportunities within the CSS industry

# VALUE STATEMENT

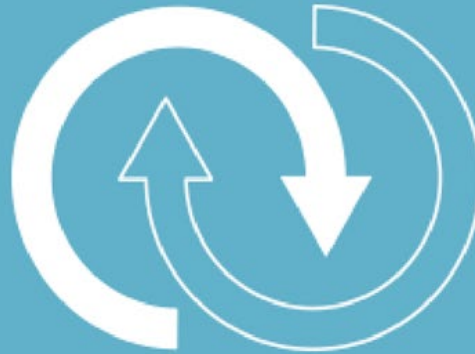
## To CSS Customers

Recognized since 1971 as Leaders in the design, manufacturing, and supply of Conveyor and Sortation Systems Equipment, Components, and Technology.

Invested in the conveyor industry in unique ways over time, including giving back through college scholarships, and end user and manufacturer education.

Can provide end users with access to a wide range of perspectives and solutions, and as a collective of manufacturers, are genuinely invested in customer success.

[LEARN MORE ABOUT CSS MEMBERS >>](#)



## To CSS Members

Unique networking opportunities.

Provide opportunities for industry education, leadership, and increased market presence.

Lend your company the collective credibility of its industry leading members that has been established over its nearly 50 years as an organization.

Provide exposure to end users.

Access to data on industry trends and other market intelligence data.

[JOIN CSS TODAY >>](#)

## 1 Market Intelligence

- Market forecasts and economic indicator monitoring
- Industry commodity forecasts
- Trend monitoring

## 2 Networking & Access to Industry Peers

- Leadership development
- Networking with other subject matter experts throughout the industry
- Peer to peer interaction which promotes collaboration and industry betterment

## 3 CSS Members are recognized as Market Leaders

- Offer collaborative responses to regulatory changes
- Are invested in the promotion, safety, and success of the conveyor and sortation systems industry
- Have been recognized as industry leaders since 1971
- Are Subject Matter Experts

## 4 Increased Exposure to End-Users & Increased Business Opportunities

- Web-based case studies provide potential solutions and increase engagement with end-users
- Blogs for Industry Awareness and Promotion
- End-user Educational Publications

The **Conveyor and Sortation Systems (CSS) Industry Group** of MHI combines the knowledge and experience of thousands of installations. For more information and current members, visit [mhi.org/css](http://mhi.org/css).

# Care and Maintenance

OF CONVEYOR AND SORTATION SYSTEMS

# Care and Maintenance of Conveyor and Sortation Systems

Ensuring that a conveyor or sortation system will operate continuously at peak levels of performance requires routine care and maintenance.

Every manufacturer and supplier of conveyor and sortation equipment will provide a list of recommended maintenance procedures and service intervals specific to each unique installation.



# Generally Recommended Maintenance Procedures Include...

- Daily inspections to identify signs of wear or damage, including drips, leaks, debris, or unusual noises
- Routine audits to ensure the equipment is running at optimal performance; safety features are fully operational and that transported loads do not exceed system capacity
- Documentation of the date the problems are identified, how they are corrected, and who performed the work
- Monitoring of motors and drive train to ensure no parts are damaged or broken
- Routine lubrication of bearings to reduce friction and wear
- Verification that all belt/chain tension, timing and tracking components are properly adjusted to prevent surging, jams, slipping or excessive wear



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# Generally Recommended Maintenance Procedures Include...

- Inspection for and prevention of contamination, including dust, grime, abrasives, fluids, and other items that can compromise surfaces
- Routine inspection of conveyor control devices (sensors, automatic identification components, scales, and dimensioning systems) to ensure proper package flow, identification, tracking, and data messaging
- Stocking of critical or frequently worn spare parts
- Proper training of on-site technicians in safety and maintenance procedures
- Keeping informed about parts or systems that are no longer being manufactured or soon-to-be discontinued



# Safety Measures

FOR CONVEYOR AND SORTATION SYSTEMS

# Recommended Safety Practices



To keep both personnel and products safe during conveyor and sortation system operation, there are a variety of recommended safety practices facilities should observe. They include:

- **Observe equipment capacity limitations.** Conveyor and sortation systems are engineered and constructed to meet specific application specifications regarding the size, weight, shape, distribution, desired handling speed, and more. Prior to introducing new products into the system, it is important that each be evaluated to ensure adherence to the original specifications. If this step is skipped, multiple problems can occur, including jams, motor overloads, belt breaks, items falling between rollers, damaged product, or product falling off the conveyor—and potentially onto personnel.
- **Don't ride on the equipment.** Advise personnel of the dangers—such as injury or death—associated with climbing, sitting, standing, walking, riding, or touching a conveyor or sortation system when in operation.

# Recommended Safety Practices



- **Restrict operation and maintenance to qualified, trained personnel.** Only technicians and operators who have been trained in the use of the conveyor and sortation equipment should be allowed to access its controls or perform service and repair procedures.
- **Lock all power sources and tag equipment accordingly prior to performing maintenance.** To prevent injury or death, prior to servicing conveyor or sortation equipment, all power systems (electrical, gravity, hydraulic, air, etc.) must be completely shut down, locked, and tagged with the reason for the lockdown. The same lock out, tag out (LOTO) procedure applies when clearing jams.
- **Utilize guarding.** Make sure guarding and covers integrated into the conveyor or sortation equipment is always in place and secure prior to operation.

# Recommended Safety Practices



- **Install barriers or floor striping.** To prevent personnel from walking or working too close to conveyor or sortation equipment, install safety barriers or paint warning zones on the floor to alert operators to the potential danger of coming too close to the equipment.
- **Use controls properly.** Do not modify or override conveyor controls. Ensure that pull cords, push-button stations, and emergency stops are visible and accessible.

# Safety Labels and Signage

A series of standardized, adhesive-backed safety labels and posters are available from the Conveyor Equipment Manufacturers Association (CEMA) for placement on and around conveyor and sortation systems. These visual cues warn personnel about potential dangers, including:

- Hazardous area
- Hazardous noises
- Safe maintenance procedures
- Pinch points
- High voltage
- Moving parts
- Guarding requirements



For More Information  
Contact MHI's Conveyor & Sortation  
Systems (CSS) Group  
[mhi.org/css](https://mhi.org/css)

NEXT UP... MODULE 4: HANDLING APPLICATIONS WITH  
CONVEYOR AND SORTATION SYSTEMS