

Plextrusions synthetic decking solution

Business overview

- Plextrusions, Inc. is a respected manufacturer of marine boat flooring, known for premium-quality synthetic decking.
- Despite their craftsmanship, the extrusion process relied on manual compounding - filling buckets of material and additives by hand.



Business challenge

- The manual process had major challenges: operator safety risks, inconsistent production quality, and time-consuming changeovers - driving up labor costs and threatening production consistency.
- Plextrusions was faced with rising inefficiencies, growing waste, and limited scalability - all of which could jeopardize competitiveness in a high-performance market.

Business outcomes

- Significantly minimized risks associated with handling additives.
- Tasks that took hours to complete, can now be done in just minutes.
- Line speed has increased from 4.9 feet per second to an impressive 7 feet per second (+40% capacity).

Capacity enabled

- Automated blending of 4 different raw material and additives components.
- Precision dosing for consistent high quality.
- Continuous feeding for optimal line speed and improved OEE.

Business impact

Revenue increase	✓
Costs decrease	✓
Proof of compliance	✓
Increased efficiency	✓

Customer case

CLE Plastics
Machinery LLC

PLEXTRUSIONS INC.

“Movacolor’s solution has changed the way we produce forever.”

Rodger Johnson, Plextrusions Inc.

Business solution

Plextrusions synthetic decking solution



Technology enablers

- Gravimetric dosing technology measures material by weight rather than volume. This enables real-time compensation for bulk density changes, meaning if the material density shifts, the system still doses the correct weight.
- The feeder automatically adjusts dosing rates based on material consumption and extruder capacity variation, ensuring a consistent process and preventing over- or under-dosing.

Customer case

 **MOVACOLOR**

Technology solution

Capabilities

- The MCS Continuous Feeder provides real-time gravimetric control to ensure precise dosing despite bulk density changes and enables simultaneous measurement of main material and additives for maximum cost efficiency.
- Operates a closed-loop feedback system, which continuously monitors and adjusts dosing in real time to maintain consistent product quality and reduce material waste.

Benefits

- Tasks that took hours to complete, can now be done in just minutes.
- Line speed has increased from 4.9 feet per second to an impressive 7 feet per second (+40% capacity).
- Reduced material usage due to a reduction in product rejects.

Requirements

- Initial phase with trial to push for internal adoption rate for automation.
- Extensive testing due to a switch from compounding to dosing materials directly into the machine inlet.