

Modern Mold Sealing: Foundries Move Beyond Cope-Rope with REFCOSTIX 3400

Product: REFCOSTIX 3400 Mold-Seal | **Application:** Gray & Ductile Iron Foundry (no-bake molding)

Customer Overview

Data used for this study comes from two large U.S. iron foundries producing complex gray and ductile iron castings in flask and flask-less molds. The foundries previously relied on traditional cope-rope for sealing parting lines.

Challenge: Inefficiency and Scrap from Cope-Rope

- **Excessive flashing:** Cope-rope often failed to compress evenly, causing parting-line flash.
- **Runouts & leaks:** Older tooling and thin mold sections led to frequent runouts.
- **Labor burden:** Twisting and cutting rope around sprues increased cycle time and ergonomic strain.
- **Cost impact:** Higher scrap, rework, and extended cleaning increased operating costs.

Solution: REFCOSTIX 3400 Mold-Seal

Implementation Highlights

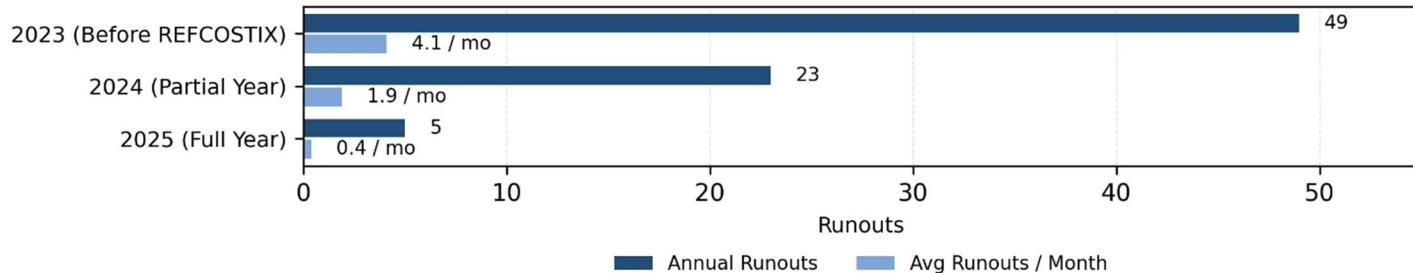
- Liquid/pumpable seal applied with battery-powered caulk guns
- Drum-to-cartridge refill station with pressure plate
- Standard $\frac{1}{2}$ " - $\frac{3}{4}$ " bead nozzle ($\frac{1}{2}$ " effective for most molds)

This eliminated manual rope handling, improved uniformity, and simplified operator workflow.

Measured Results

Following implementation, both monthly and annualized runout events declined sharply and remained low.

Runout Reduction Over Time



Additional Performance Gains

- **50 % reduction** in overall **flashing** (thickness and area)
- **30 % reduction** in overall **cleaning / finishing times**
- Runout molds cut by > 80% within first 12 months of use

Economic & Operational Impact

- **Reduced scrap & rework** from cleaner parting lines
- **Faster throughput** due to less flashing
- **Improved operator efficiency** – no rope twisting or cutting

Conclusion

REFCOSTIX 3400 has proven to be a superior alternative to traditional cope-rope, delivering measurable performance improvements, labor savings, and significant financial return. Modern mold sealing isn't just cleaner — it's smarter.

Seal Smarter. Cast Cleaner.