



Mastering Returns Maximizing Profits

MasterAtlas[®] R₃ Returned Concrete Program

Turn Waste into Wealth.

Transform Sustainability into a Competitive Advantage.

Returned Concrete Shouldn't Be a Loss

Every year, over 5% of ready mixed concrete produced in the U.S. is returned to concrete plants, making it a staggering \$2 to \$4B problem. Much of it is discarded or repurposed at low value, costing concrete producers in lost profit and sustainability opportunities. Additionally, returned concrete that is not addressed effectively lengthens truck cycle time, increases labor hours and reduces efficiency. But what if this 'wasted material and time' could be turned into a valuable resource?

MasterAtlas R₃ Returned Concrete Program

This system seamlessly guides decision-making by combining MasterAtlas technology, AI, admixtures, automation, and smart sensor data to enable cost-effective reuse of returned concrete. With MasterSet[®] DELVO admixture to stabilize fresh concrete and MasterSuna[®] RCT 323 admixture to process unfit material, concrete producers can reduce waste, recover material value, and improve plant efficiency.

REAL PRODUCER RESULTS

Maximizing Profit in Action

One producer (5 plants) reused over 40,000 yd³ in a single year:



\$70,000+ profit
increase per plant



3,000 metric tons
CO₂ reduction



220,000 gallons of
water saved



6,000 tons cement
reduction

THE SOLUTION

The system integrates truck-mounted sensor data with the MasterAtlas platform to deliver real-time monitoring of return volume, temperature, and precise admixture dosing recommendations.

- **MasterSet[®] DELVO:** Stabilizes hydration to keep concrete reusable (ASTM C1798 and ASTM C494 compliant)
- **MasterAtlas[®] Digital Platform:** Tracks return loads, suggests reuse locations, and recommends MasterSet DELVO dosage
- **MasterAtlas[®] R₃ Program:** Allows returned concrete to easily be given a new life- fresh, reliable, and resellable

READY TO REUSE?

Ask your Master Builders Solutions representative about the MasterAtlas R₃ Returned Concrete Program today:

- Recover value from every load
- Lower your carbon footprint
- Boost operational profit

MasterAtlas R₃ Returned Concrete Program

Ready Mix Concrete Producer FAQ



Q: What is the MasterAtlas R₃ Returned Concrete Program?

The MasterAtlas R₃ Returned Concrete Program is implemented at your concrete plant. The program incorporates state-of-the-art technology and the expertise of Master Builders Solutions to manage the return of fresh concrete for profit.

Q: What admixtures are used in the program?

MasterSet DELVO is the primary admixture used to keep returned concrete fresh until it can be incorporated into another fresh batch. Other admixtures can also be utilized and are selected to accommodate your specific operations. For example, concrete deemed unfit for resale may be treated with **MasterSuna RCT 323** to be reused as road base, backfill, or recycled aggregate.

Q: How does the program work?

The MasterAtlas Returned Concrete Program enables your operation to reuse returned concrete for far more than blocks and backfill. The system automatically measures how much concrete is returned from the job site, calculates the precise dose of MasterSet DELVO to add, and identifies optimal locations to reuse the material. The result: your operation transforms waste into pure profit while saving time, labor, and costs.

Q: What is the industry position on reusing returned concrete? Is it allowable?

Industry documents have accommodated the process of reusing returned concrete.

- The parameters are outlined in the **ASTM C1798/C1798M-24 Standard Specification for Returned Fresh Concrete for Use in a New Batch of Ready-Mixed Concrete**.
- ASTM C1798 Standard Specification for Ready Mixed Concrete allows for returned concrete usage (see Section 5 Materials).
- The ACI 212 document on Chemical Admixtures describes a hydration control admixture like MasterSet DELVO.

Q: Is the MasterSet DELVO admixture used for the returned concrete program certified?

Yes, the **MasterSet DELVO** admixture is certified to meet ASTM C494 as a Type D admixture.

Q: Do producers need truck sensors to participate?

Yes, truck sensors are essential to creating a seamless and efficient process. The sensors track both concrete temperature and return volume, enabling MasterAtlas to calculate an accurate MasterSet DELVO dose. MasterAtlas can also keep track of project sites that can accept the returned material. Additionally, your batch console must be able to adjust for returned concrete.

Q: How long does it take to get concrete producers up and running with the MasterAtlas system?

The system is designed to integrate smoothly with your existing operations, so there is **minimal setup time** and **little to no disruption** to your daily business. In most cases, producers can be up and running within **a couple of days!**

Q: What results are concrete producers seeing?

Concrete producers who have adopted the program are experiencing measurable success. Here's what they're achieving:

- **Boosted profitability**—returned concrete is now being resold at near full market value. One customer generated over **\$700,000 in profit** last year simply by reselling returned concrete material that would have previously been discarded.
- **Reduced dependency on virgin raw materials**, promoting sustainability and cost efficiency.
- **Lowered overall carbon footprint** by reintegrating returned concrete into new production batches.



Contact admixtures@masterbuilders.com to get started.

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