



● STEAM

# Concrete Plant Boiler Scale Control Case Study United States

HydroFLOW® units controlled scale buildup in concrete plant boiler systems, improving efficiency, reducing maintenance and lowering chemical usage across multiple sites.

**6 yrs**

Proven Performance Duration

**No**

Scale Build-up Observed



Maintenance Requirement



Chemical Usage

## ⇒ BEFORE & AFTER

### ● BEFORE

- ✗ Scale buildup reduced boiler efficiency
- ✗ Frequent maintenance required
- ✗ High chemical usage for control

### ● AFTER

- ✓ No significant scale buildup observed
- ✓ Maintenance requirements reduced
- ✓ Lower chemical usage achieved

## OVERVIEW

Concrete plants across the United States use boilers to generate warm water and steam for batch production. In hard water areas, these systems suffered from scale accumulation, reducing efficiency and increasing maintenance requirements.

## CHALLENGE

Scale accumulation in boiler systems reduced efficiency and increased maintenance and chemical dependency.

- Scale buildup in boilers reduced efficiency
- Frequent maintenance required to remove deposits
- High chemical usage to control scale
- Hard water conditions accelerated scaling



## SOLUTION

HydroFLOW® i100 units were installed on the cold-water feed line to boilers, enabling non-invasive scale control across multiple systems.

### UNIT INSTALLED

1x HydroFLOW® i100

### INSTALLATION POINT

Cold-water boiler feed line

### APPLICATION

Concrete plant warm water boilers

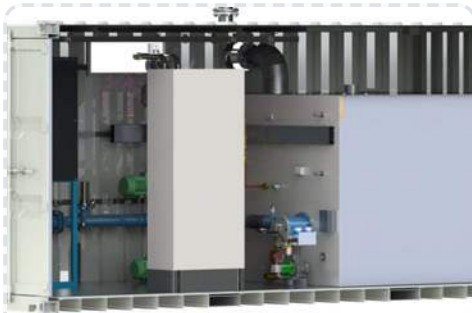
### IMPLEMENTATION

Nationwide rollout from 2018



### INSTALLATION

*i100 on boiler feed*



### SITE

*Boiler system setup*



### SITE

*Hot water tank*



## RESULTS

### Scale Build-up Controlled

Hydropath treatment controlled scale accumulation in boiler systems.

### Reduced Maintenance

Maintenance requirements decreased across installations.

### Lower Chemical Usage

Chemical use reduced due to improved scale control.

### Improved Efficiency

Boiler efficiency improved by preventing scale formation.

### Long-Term Performance

Successful operation maintained over 6 years.

### Multi-Site Deployment

Applied across multiple concrete plants nationwide.

### KEY TAKEAWAY

## Summary

Hydropath technology controlled scale in concrete plant boiler systems across the U.S., reducing maintenance and chemical use while improving efficiency over long-term operation.

**6 yrs**

OPERATIONAL PERFORMANCE

**No**

SCALE BUILD-UP



CHEMICAL USAGE



## ADDITIONAL PHOTO EVIDENCE



SITE

Side stream filtration unit for boiler system

### RELATED CASE STUDY

## Concrete Mixing System Scale Control Case Study

Vrdu, Czech Republic

HydroFLOW® units reduced calcium deposits in recycled water systems at a concrete plant, improving dosing accuracy, reducing downtime, and supporting more efficient production operations.

#### 75% Deposit Reduction

Calcium deposits reduced by up to 75% in recycled water pipelines

#### Reduced System Downtime

Fewer shutdowns required, improving operational continuity

#### Improved Measurement Accuracy

More accurate dosing supported consistent production quality

**HYDROPATH** 

**Ready to eliminate scale in your boilers?**

Get a free consultation for your facility.

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