



• CONCRETE PRODUCTION

Concrete Mixing System Scale Control Case Study Vrды, Czech Republic

HydroFLOW® units reduced calcium deposits in recycled water dosing systems, improving measurement accuracy, reducing downtime and enhancing concrete production efficiency.

75%

Deposit Reduction (up to)



Measurement Accuracy



System Downtime



Operational Efficiency

↔ BEFORE & AFTER

● BEFORE

- ✗ Calcium deposits clogged pipes and valves
- ✗ Mass scale accuracy affected by buildup
- ✗ Frequent cleaning and shutdowns required

● AFTER

- ✓ Significant reduction in calcium deposits
- ✓ Improved accuracy of mass measurements
- ✓ Reduced cleaning frequency and downtime

OVERVIEW

GOLDBECK PREFABETON produces precast concrete elements using recycled water from mixer washing processes. High lime content in the recycled water caused calcium deposits in pipes and control valves, affecting dosing accuracy and final product quality.

CHALLENGE

Calcium deposits in recycled water systems reduced dosing accuracy and caused inefficiencies in concrete production.

- High lime content caused calcium deposits
- Pipes and valves clogged in dosing system
- Mass scale accuracy was affected
- Frequent cleaning and downtime required

HYDROPATH

The Forefront of Sustainable Water Treatment

SOLUTION

3x *HydroFLOW*® i130 units were installed on DN80 recycled water pipelines to control calcium deposition and improve system performance.

UNIT INSTALLED

3x *HydroFLOW*® i130

PIPE SIZE

DN80 pipeline

WATER SOURCE

Recycled mixer wash water

FLOW RATE

70 L every 4 minutes



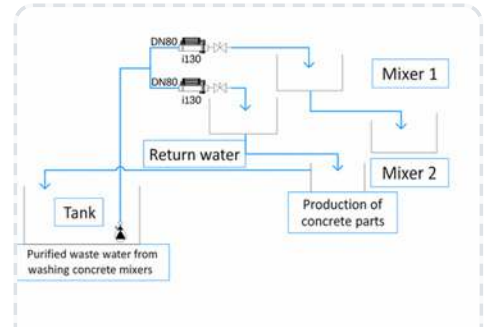
INSTALLATION

i130 on DN80 line



SITE

Concrete mixing system



MONITORING

Installation layout

RESULTS

75% Deposit Reduction

Calcium encrustation reduced by up to 75% after installation.

Improved Accuracy

Mass scale measurement accuracy significantly improved.

Reduced Cleaning

Longer intervals between system cleaning cycles achieved.

Less Downtime

Reduction in shutdowns improved operational continuity.

Higher Efficiency

Overall system efficiency noticeably improved.

Better Product Quality

Improved dosing accuracy supported consistent product quality.

KEY TAKEAWAY

Summary

HydroFLOW® units reduced calcium deposits in recycled water systems, improving dosing accuracy, reducing downtime and enhancing efficiency in concrete production.

75%

DEPOSIT REDUCTION (UP TO)



DOWNTIME



ACCURACY

HYDROPATH

The Forefront of Sustainable Water Treatment

HydroPath Technology is a world leader in sustainable water treatment solutions, providing chemical-free alternatives for industrial and commercial applications across more than 50 countries.

50+

COUNTRIES

30+

YEARS EXPERIENCE

1M+

UNITS INSTALLED

RELATED CASE STUDY

Commercial Building Cooling Tower Case Study

Honolulu, Hawaii

HydroFLOW® units installed on a commercial building cooling tower in Hawaii eliminated the need for chemical biocides while dramatically reducing water waste through blow-down reduction, delivering over \$121,000 in annual savings with a 3-4 month return on investment.

85% Biocide Reduction

Near-total elimination of chemical biocide dosing on the cooling tower system

50% Blow-down Reduction

Halved water waste by reducing blow-down cycles significantly

\$121K Annual Savings

Combined chemical, water and maintenance cost savings per year

HYDROPATH 

Ready to eliminate scale in your process?

Get a free consultation for your facility.

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