



STRUVITE

Screw Press Struvite Treatment Case Study Utah, USA

A two-month evaluation eliminated struvite chemical dosing, reduced screw press cleaning from up to 30 hours to under four and delivered a three-month payback.

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Chemical Dosing

30→4 hrs

Cleaning Time Reduced

2x

Longer Between Cleaning

3 months

Payback Period

BEFORE & AFTER

BEFORE

- \$8,000/month struvite chemical
- Hard struvite required monthly cleaning
- Cleaning took up to 30 hours per press

AFTER

- ✓ Chemical dosing was stopped immediately
- ✓ Only soft, mud-like struvite accumulated
- ✓ Pressure washing took under four hours



BEFORE

Hard struvite inside the screw press



AFTER

Soft struvite after treatment



OVERVIEW

A wastewater treatment plant in Utah operated two screw presses affected by severe struvite accumulation. The plant spent \$8,000 per month on struvite reduction chemicals while hard deposits still required monthly cleaning taking up to 30 hours. A two-month evaluation assessed whether Hydropath technology could reduce scale, maintenance and chemical use



CHALLENGE

- Persistent, concrete-like struvite created high chemical costs and lengthy monthly cleaning for the plant's screw presses.
- Struvite accumulated continuously inside both screw presses.
 - The plant spent \$8,000 per month on a struvite-reduction chemical.
 - Each press required cleaning every month.
 - Hard deposits made cleaning take as long as 30 hours.



SOLUTION

One *HydroFLOW*® Custom 8" unit was fitted to the sludge line feeding one screw press. Chemical dosing was stopped to evaluate Hydropath treatment independently over two months.

UNIT INSTALLED

1x *HydroFLOW*® Custom 8"

INSTALLATION POINT

Sludge feed line to one screw press

SYSTEM TREATED

One of the plant's two screw presses

EVALUATION PERIOD

Two months



INSTALLATION

HydroFLOW® unit fitted to sludge line



SYSTEM

HydroFLOW® Custom unit illustration



RESULTS

🕒 Chemical Dosing Stopped

The plant discontinued struvite-reduction chemical dosing at the start of the test.

🔑 30-Day Cleaning Avoided

After 30 days, the treated screw press did not require its usual monthly cleaning.

💧 Soft Struvite Deposits

Only a small amount of soft, mud-like struvite had accumulated after 30 days.

🕒 Cleaning Cut Below Four Hours

The 60-day pressure wash took under four hours instead of the typical 30 hours.

🧼 Scale Easily Washed Away

Sheets of softened struvite washed easily from the screw press during cleaning.

💰 Three-Month Payback

Lower chemical use and reduced manual cleaning delivered a three-month payback.



TESTIMONIAL

"Outstanding results! Night and day difference before and after HydroFLOW®."

— Maintenance Manager

KEY TAKEAWAY

Screw Press Struvite Control

One *HydroFLOW®* Custom 8" unit treated the sludge feed line to one screw press during a two-month evaluation. Chemical dosing stopped immediately, no cleaning was required after 30 days, and the 60-day wash took under four hours instead of up to 30. Reduced chemical use and maintenance delivered a three-month payback.

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CHEMICAL DOSING

30→4 hrs

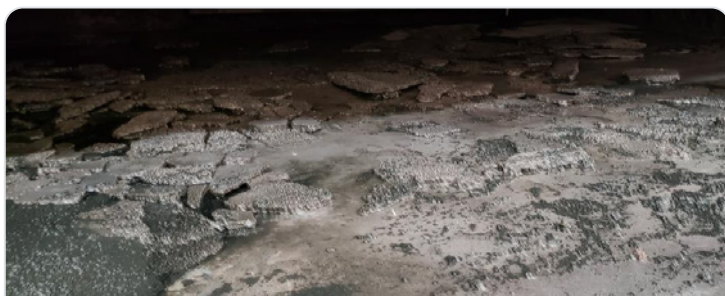
CLEANING TIME REDUCED

2x

LONGER BETWEEN CLEANING



ADDITIONAL PHOTO EVIDENCE



AFTER

Sheets of soft struvite washed off the screw press

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