



HOSPITAL

Medical Centre Steam Boiler Case Study **Florida, USA**

A *HydroFLOW® i60* controlled hard scale in an electric steam boiler, removing existing deposits within 60 days and achieving a reported 16-month payback.

~3 mm

Initial Scale Thickness

60 days

Existing Scale Removed



Flow & Heat Transfer Maintained

16 mos

Achieved Payback

BEFORE & AFTER

BEFORE

- Heating elements carried about 3 mm of hard scale
- Eight elements averaged four years' service life
- Scale affected elements and heating chambers

AFTER

- ✓ No new hard scale found after 60 days
- ✓ Existing hard scale was removed
- ✓ Residual deposits became loose powder



BEFORE

Hard scale on heating elements



AFTER

Elements clear after 60 days

OVERVIEW

A Florida medical centre operated a Sussman ES135 electric steam boiler with eight heating elements, each averaging four years of service. Excessive hard-scale accumulation of approximately 3 mm affected the elements, prompting an evaluation of *HydroFLOW*® to improve scale control and equipment performance.

CHALLENGE

Excessive hard scale accumulated on the boiler's heating elements and inside its heating chambers.

- Hard-scale deposits reached approximately 3 mm
- Heating elements averaged four years of service life
- Scale control was needed to support heat transfer efficiency

SOLUTION

A *HydroFLOW*® i60 was installed on the incoming copper cold-water pipe feeding the Sussman ES135 electric steam boiler. Performance was assessed after 60 days of operation.

UNIT INSTALLED

1x *HydroFLOW*® i60

EQUIPMENT

Sussman ES135 electric steam boiler

INSTALLATION POINT

Incoming copper cold-water pipe

ASSESSMENT PERIOD

60 days



PIPEWORK

Cold-water feed to steam boiler



SYSTEM

Sussman ES135 boiler



INSTALLATION

i60 fitted to the cold-water feed

RESULTS

No New Hard Scale

No new hard-scale accumulation was found after 60 days.

Existing Scale Removed

Existing hard scale was removed from the electric heating elements.

Heating Chambers Cleared

Existing hard-scale deposits were removed from inside the heating chambers.

Remaining Deposits Loosened

Residual scale was observed as very loose powder rather than hard deposits.

Flow & Heat Transfer Maintained

Loose deposits did not impede water flow or heat-transfer efficiency.

16-Month Payback Achieved

The case study reports an achieved payback period of 16 months.

KEY TAKEAWAY

Summary

A Florida medical centre operated a Sussman ES135 electric steam boiler with eight heating elements, each averaging four years of service. Excessive hard-scale accumulation of approximately 3 mm affected the elements, prompting an evaluation of *HydroFLOW*® to improve scale control, heat transfer and element service life.

60 days

EXISTING SCALE REMOVED



FLOW & HEAT TRANSFER
MAINTAINED

16 mos

ACHIEVED PAYBACK

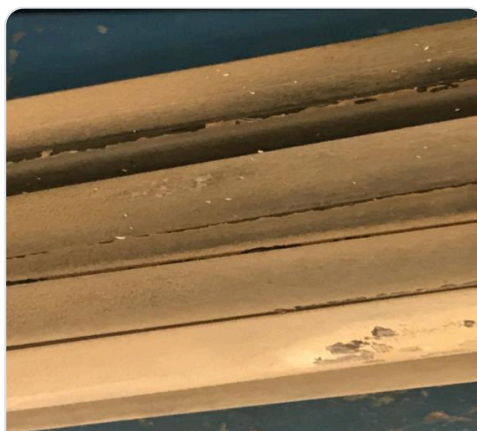


ADDITIONAL PHOTO EVIDENCE



BEFORE

Close-up of hard scale on a heating element



AFTER

Heating elements after 60 days of treatment

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

HYDROPATH

Need better scale control for steam-boiler systems?

Ask Hydropath about non-chemical scale control for steam systems.

✉ sales@hydropath.com

☎ +44 (0)115 986 9966

🌐 hydropath.com

✓ ISO 14001:2015

✓ ISO 9001:2015

✓ GREENPRO

✓ SOLAR IMPULSE