

WASTE WATER

HERA Sludge Shredder Struvite Case Study Bologna, Italy

*Hydro*FLOW® i160 reduced struvite fouling, allowing a sewage sludge shredder to operate for at least 65 days without interruption.

3x	65 Days	↓	✓
Less Frequent Cleaning	Continuous Running	Fewer Shutdowns	Reduced Blockages

⇄ BEFORE & AFTER

BEFORE

- Struvite blocked shredder blades
- Shutdowns every 20-30 days
- Cleaning and descaling required

AFTER

- ✓ Shredder ran for 65 days
- ✓ Maintenance intervals tripled
- ✓ Reduced risk of plant shutdowns



BEFORE

Shredder after 20 days untreated



AFTER

Shredder after 65 days treated

OVERVIEW

HERA S.p.A. operates wastewater treatment facilities serving around four million people across Italy. At its Bologna plant, struvite deposits repeatedly formed on a sewage sludge shredder, causing blockages, reduced flow and plant shutdowns every 20 to 30 days. *Hydro*FLOW® was trialled to reduce fouling and extend operating periods between maintenance.

CHALLENGE

Sticky struvite fouling caused repeated shredder blockages, flow loss and plant shutdowns.

- Struvite deposits blocked shredder blades
- Shutdowns occurred every 20-30 days
- Frequent cleaning and descaling were required

SOLUTION

1x *Hydro*FLOW® i160 unit was installed on the sludge feed line supplying the shredder, with 24-hour remote monitoring throughout the trial.

UNIT INSTALLED
1x *Hydro*FLOW® I160

APPLICATION
Sewage sludge shredder

COMMISSIONING DATE
15 September 2019

MONITORING
24 hour remote monitoring



INSTALLATION

HydroFLOW® i160 on sludge line

RESULTS

3x Longer Intervals
Maintenance and cleaning intervals extended three times longer.

Reduced Struvite Fouling
Less fouling accumulated on shredder blades.

Fewer Shutdowns
Reduced fouling lowered the risk of plant shutdowns.

Customer Satisfaction
Customer later purchased the units used in the trial.

TESTIMONIAL

> *"The customer said he was completely satisfied with the use of Hydropath technology for preventing struvite fouling on the sewage sludge line."*
>
> — HERA S.p.A.

KEY TAKEAWAY

Summary

HERA S.p.A. tested *Hydro*FLOW® treatment at its Bologna wastewater plant to reduce struvite fouling on a sewage sludge shredder. Before installation, sticky deposits blocked shredder blades and forced cleaning every 20 to 30 days. Following installation of a *Hydro*FLOW® i160 unit, the shredder operated for 65 days without interruption, maintenance intervals tripled and HERA later purchased the trial units.

3x	65 Days	✓
LESS FREQUENT CLEANING	CONTINUOUS RUNNING	REDUCED BLOCKAGES

ADDITIONAL PHOTO EVIDENCE



BEFORE

Shredder after 20 days without treatment



AFTER

Shredder after 18 days with 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+	30+	1M+
COUNTRIES	YEARS EXPERIENCE	UNITS INSTALLED

HYDROPATH

Ready to reduce wastewater maintenance?

Contact Hydropath to discuss struvite and fouling treatment for wastewater systems.

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